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Abstract Booklet

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Session 1

Thursday, Sept. 7, 10:30am – 12:30pm

Session 1A: STEW 214

How misperception affects the structure of the L2 mental lexicon: A re-analysis of Cutler (2005)

Brian Rocca, Frank Martino & Isabelle Darcy

When second language (L2) learners cannot discriminate a novel L2 phoneme from a first language (L1) phoneme, this leads to L1-influenced lexical encoding [1-2] which can affect word recognition in several ways. First, learners are unable to distinguish minimal pairs, leading to pseudo-homophony (e.g., if a learner cannot discriminate English /ε/-/æ/, then pen-pan are homophones). Second, there is spurious activation of embedded words (e.g., “pen” becomes activated when a learner hears “panda” because it is encoded as p[ε]nda). Third, there is temporary ambiguity (e.g., if a learner cannot distinguish /l/-/r/, then register-legislate are perceived as homophones until the sixth phoneme is processed and distinguishes them). Cutler [3] investigated how perceiving English /ε/-/æ/ as one phoneme and /l/-/r/ as one phoneme would affect the mental lexicon. Using the CELEX database, she calculated statistics for each of the three issues described. This was an innovative approach to considering the ramifications of misperception on lexical encoding and word recognition; however, CELEX contains 70,000 words—larger than many native speakers’ mental lexicons let alone an average L2 learner’s.

The present study replicates Cutler’s analyses using the EVP-Phon database, which was designed to simulate the phonological network of L2 English speakers’ mental lexicons. We created the EVP-Phon using the American English version of Cambridge’s English Vocabulary Profile [4]. Containing 6500 words, this provides a realistic picture of which words L2 learners know and can use at each Common European Framework of Reference (CEFR) proficiency level. The CEFR information allows us to compute figures for Cutler’s analyses at each proficiency level so we can understand how lexical encoding issues compound as more words are added to the lexicon. An additional analysis reveals the total number of phonological neighbors at each proficiency level to understand how misperception affects the structure of the phonological network.

Perception of English Stop Voicing Contrasts by L1 Arabic L2 English Experienced Learners

Miquel Simonet, Bouchra El Harrak & Mourad Abdennebi

English possesses a voicing contrast in its stop inventory: /b/-/p/, /d/-/t/, /g/-/k/. Its voiced consonants have a short-lag VOT, and its voiceless consonants are aspirated (Lisker & Abramson, 1964, 1967). (Modern Standard) Arabic also possesses a voicing contrast in its stop inventory but, unlike English, it manifests this contrast only in one place of articulation, /d/-/t/.

Arabic has /b/ but not /p/, and it has /k/ but not /g/. In Arabic, /b d/ are typically prevoiced, and /t k/ are aspirated (Kulikov, 2020, 2022). Our study investigates the extent to which the phonological differences between English and Arabic pose an acquisitional obstacle for L1 Arabic L2 English learners. Others have examined the pronunciation of English stops by L1 Arabic L2 English learners (Flege & Port, 1981; Olson & Hayes-Harb, 2019; Saud Alharbi et al., 2022). Here, we analyze perception data. Thirty L1 Arabic L2 English learners from Saudi Arabia residing in North America categorized three synthetic acoustic continua into their respective English consonants, <ba-pa>, <da-ta>, and <ga-ka>. We also recruited a control L1 English group. The stimuli varied in 10-ms increments between 0 and 80 ms. Sigmoid functions suggested the following: 1) The categorization of the /b/-/p/ and /g/-/k/ contrasts of the two groups was identical—there was no evidence of an acquisitional obstacle for these learners with regards to these contrasts. 2) It was the categorization of the /d/-/t/ contrast that captured a difference between the two groups. The /d/-/t/ cross-over point was earlier (i.e., had a shorter VOT) for the learners than for the controls. This is not surprising because Arabic /d/ is prevoiced and English /d/ is not. These findings provide evidence for place-specific cross-language phonetic interference but against featural generalization; they also show that, unlike “similar” ones, novel contrasts may not be particularly difficult for learners.

A longitudinal perception study on the establishment of L2 categories

Peng Li, James Emil Flege, Clara Martin & Natalia Kartushina

Most learners eventually show progress in perceiving the phonetic segments of an L2, but can this happen via the input received in a foreign language classroom with limited L2 input? In this study, 19 Norwegian speakers learning Chinese at a Norwegian university participated in a three-session (T1, T2, T3) longitudinal study over six months, during which we assessed their identification of the Chinese consonants /b/-/p/ and vowel /y/. The Norwegian stops show a similar laryngeal contrast to Chinese, while the Chinese /y/ is similar to the Norwegian /u/ and /y/. Therefore, the two sets of phonemes represent different degrees of difficulty. In the consonant identification task, the stimuli varied in voice onset time (VOT) between /ba/ and /pa/. In the vowel identification task, the stimuli varied in the second formant (F2), which resembled the change from /u/ and /y/, while the F2 of Chinese /y/ is in the middle of the two vowels. The participants had to choose between “ba” and “pa”, and between “y” and “not y”. Thirteen Chinese native speakers performed the same two tasks. We compared the learners’ perception at each session to that of the Chinese natives. For the consonant identification task, the learners did not significantly differ from Chinese natives at T1 but did so at T2 and T3 (Fig. 1). For the vowel identification task, the learners significantly differed from Chinese natives across T1-T3, but only subtle changes were found between tests (Fig. 2). The results suggest that with limited quantity and quality of L2 input, learners may show limited improvements in establishing new categories. Interestingly, for the easier /b/-/p/ contrast, the participants performed like native speakers at the beginning but showed non-native-like performance thereafter. The results thus call for future research to further explore the relationship between L2 input and L2 category establishment.

Eyebrow Raising and Lexical Stress Perception in L2 Spanish

Sebastian Leal-Arenas & Amanda Huensch

Visual information (e.g. head movement, eyebrow raising) accompanying speech has been reported to enhance linguistic processing in L1 populations (e.g. House et al., 2001; Krahmer & Swerts, 2006; Prieto et al., 2015). Little is known, however, about the effects of visual cues in L2 perception which is an important line of research given the potential benefits of harnessing these cues for teaching and learning. The present study explored the effectiveness of using a Memoji to depict eyebrow movement as a visual cue to prominence in minimal pairs of conjugated Spanish verbs that differ only in lexical stress placement (e.g. nado 'I swim' vs. nadó 's/he swam'). Participants were English L1 adults enrolled in university Spanish language courses who completed three perception tasks: Experiment 1 explored the effectiveness of eyebrow raising (presence/absence) in the perception of lexical stress. Experiment 2 examined perception in conflicting aural and visual cues (e.g. eyebrow raising on prominent and non-prominent syllables). Experiment 3 investigated the usefulness of eyebrow raising in unclear speech (e.g. speech presented with background noise). Linguistic factors included tense (present/preterit), sentential position (initial/final) and vowel quality ([a], [i], [u]). Both accuracy and reaction time were considered. Experiment 1's results indicated that participants were more accurate in perceiving lexical stress when accompanied by eyebrow raising ($M=3.68$, $SD=0.424$) and tense was the only significant variable ($p < 0.001$). In Experiment 2, participants were more accurate and faster in lexical stress perception when eyebrow raising was aligned with the stressed syllable ($M=0.667$, $SD=0.479$). In Experiment 3, participants were more accurate in recognizing lexical stress accompanied by eyebrow raising and louder background noise ($M=0.733$, $SD=0.458$). Findings are discussed in terms of perception training, visual cues to prominence, and use of animated avatars in the teaching and learning of L2 Spanish prosody.

Session 1B: STEW 218

Measuring Knowledge Needed for Pronunciation Teaching and Technology Use: Developing and Validating a Survey

Agata Guskaroska & John Levis

The benefits of using technology in learning a second language have been highlighted by numerous studies (Chapelle, 2005; Hsu, 2017). However, many factors may influence the acceptance of new technology, such as familiarity with technology, knowledge of the content, contextual factors, and familiarity with teaching methods. The Technological, Pedagogical, and Content Knowledge (TPACK) framework provides a better understanding of teacher knowledge in these three overlapping domains - technology, pedagogy, and content (Mishra & Koehler, 2006).

While the TPACK framework provides a clear representation of the three domains in general, the issue of how to measure teacher knowledge has been widely debated (Bostancioglu & Handley, 2018; Schmidt et al., 2014). Several instruments for measuring TPACK have been created and validated (Baser et al., 2016; Schmidt et al., 2014), yet, researchers have failed to validate existing surveys contributing it to imprecise construct definitions and attempts to create content-independent surveys.

To address this issue, this study will discuss the development and validity argument of a survey instrument specifically designed for measuring the Technological, Pedagogical, Pronunciation Knowledge (TPAPK) of EFL and ESL practitioners. This survey was developed by providing a detailed description of the TPAPK construct and is intended to measure TPAPK influence on pronunciation teaching technology acceptance. The intended interpretation/use argument in this paper is referring to development of a case supporting survey interpretations and uses. This survey, which will be provided to the audience, will provide a useful contribution to the field of second language pronunciation and assessment and can be used as guidance for survey development and validation for future studies.

Automatic Speech Recognition as a Pronunciation Teaching Resource: In-Service Teachers' Perceptions

William Gottard & Rosane Silveira

This study endeavored to explore the affordances of Automatic Speech Recognition (ASR) for pronunciation teaching from the perspective of inservice English teachers and investigate teachers' appraisal of ASR-based pronunciation activities designed to be implemented in L2 English classes. To achieve these objectives, an online workshop session was delivered to 12 participants in order to gather participants' perceptions of ASR technology for pronunciation teaching. In addition, seven ASR-based pronunciation activities were made available for their appraisal. Participants answered an online background questionnaire before the workshop session to collect background information, and an online survey after the workshop session to collect their perceptions of ASR for pronunciation teaching. All participants were

inservice English teachers from both public and private sectors. Data from the background questionnaire and the online survey were analyzed quantitatively by running descriptive statistics. An open-ended question from the online survey, the transcriptions of the workshop session recordings, and the saved chat logs were analyzed qualitatively. Data were categorized, coded, and then analyzed qualitatively. The overall perceptions of the participant-teachers indicate that ASR can 1) be used as a learning tool suggestion for selfstudying; 2) help encourage learners to produce more output outside theclassroom; 3) provide students with relevant orthographic feedback; 4) be used as an out of class supplement; and 5) be an adequate axillary resource for pronunciation teaching in regular classes, especially, in a hybrid environment. It is concluded that the affordances of ASR for pronunciation teaching are numerous. Yet, teachers' guidance is of paramount importance for an optimal result. All in all, this research contributes to the field of applied linguistics by offering insights on how to use ASR technology for pronunciation teaching and what further support teachers need in order to use this technology confidently in their L2 English classes.

Teachers' social characteristics modulate language learners' pronunciation preferences

Shannon Barrios, Rachel Hayes-Harb and Alayo Tripp

Learners' social beliefs about language and language users (i.e., linguistic stereotypes) impact their inferences about linguistic structure as well as their learning outcomes (e.g., Falkert, 2016; Ballard and Winke, 2017; Hayes-Harb, Barrios & Tripp, 2021). Hayes-Harb et al. (2021) demonstrated that study participants preferred speech samples exhibiting a pronunciation pattern that had been associated with a "teacher" as opposed to a "student peer" in a simulated language classroom context. In an online experiment, we followed up on this work by investigating whether preferences for the teacher's pronunciation relative to that of a student are influenced by favorable and unfavorable vignettes provided regarding the teacher's social characteristics (teaching experience, teaching efficacy, and linguistic background).

One hundred and forty-six English speakers were randomly assigned to one of eight study conditions crossing Teacher-pronunciation (target consonant produced as [s] or [z]), Vignette (favorable or unfavorable), and a counterbalancing variable Teacher-talker (Talker1 or Talker2). First, participants were presented with a vignette suggesting either a favorable or unfavorable impression of the teacher. Next, during an exposure phase, participants heard 12 new words produced by the talker assigned to the teacher role and then by the talker assigned to the student role prior to each test (Test1, Test2). At test, another "student" (Talker3) produced each word twice (once with the pronunciation of the teacher and once with the pronunciation of the student). Participants were asked to indicate which of the two pronunciations is "better". Our data reveal that participants tend to prefer the teacher's pronunciation, but that this preference is reduced when the teacher has been characterized unfavorably. We thus provide evidence that preferences for speech input from teachers are modulated by beliefs about the social characteristics of the teacher, further contributing to our understanding of linguistic stereotyping and its impact on language teaching and learning

Why are teachers reluctant to correct pronunciation errors? Exploring the role of auditory processing ability

Chaoqun Zheng & Pavel Trofimovich

Although language teachers and learners are aware of the importance of corrective feedback in successful second language (L2) pronunciation learning, there is often a mismatch between beliefs and practices. Learners often wish to be corrected but teachers are reluctant or unable to provide feedback (Kartchava et al., 2020). While factors such as teaching beliefs, experience, and training appear to affect teachers' feedback practices (Ha & Murray, 2021), no research has examined whether teachers' ability to detect and correct pronunciation errors is related to their auditory sensitivity, a domain-general processing ability to distinguish acoustic contrasts (Saito, 2023). Therefore, in this study, we investigated whether L2 teachers' auditory sensitivity predicts which pronunciation errors they target through corrective feedback and how frequently they do so.

Participants included 50 pre-service ESL teachers, all drawn from teacher-training programs at English-medium universities in Canada. They first completed a corrective feedback task where they listened to two 30-second recordings by French and Chinese speakers of L2 English and identified and corrected as many pronunciation errors as possible, rating those speakers for segmental errors, intonation, and fluency through 100-point scales. They then filled out a survey targeting their professional experience and eliciting their beliefs about corrective feedback. Finally, they completed an auditory processing test battery measuring perceptual sensitivity to nonlinguistic risetime, formant, duration, and pitch contrasts. Results revealed that pre-service teachers' ability to detect pronunciation errors (along with their ratings) was associated with their prior teaching experience and beliefs. However, after controlling for these variables, auditory sensitivity explained a small, but significant proportion of variance in the teachers' error detection scores, where those with greater auditory sensitivity tended to detect more pronunciation errors across different dimensions. Results underscore the importance of auditory processing ability in explaining pre-service teachers' challenges with identifying and correcting pronunciation errors.

Session 1C: STEW 278

Teaching and researching French nasal vowels: the pros and cons of online training modalities for improving perception and production

Shannon Becker

Nasal vowels present a unique challenge to adult L1 English speakers learning French as a second language (L2) because although nasality exists in English it is not phonemic. For this reason, perceiving the distinctions among French nasal vowels (and grasping their importance to comprehension) can prove a struggle for both L2 French learners and their teachers. Adding to this frustration, language teachers report a lack of time and expertise as reasons for neglecting pronunciation instruction in the classroom. In this talk I will use dual perspectives to evaluate the efficacy of online training modalities in addressing the interrelated challenges of nasal vowel learning and teaching. Taking an empirical perspective, I will describe a study that used high variability perceptual training (HVPT), embedded in lessons on an online survey platform, to help students learn to distinguish among French nasal vowels. This will involve an in-depth discussion of the training and testing materials and procedures as well as the resulting data from perception and production tasks. Then, taking a pedagogical perspective, I will discuss the pros and cons of using these asynchronous online platforms to include effective pronunciation instruction in the L2 French curriculum. By presenting examples from the empirical data and integrating them with existing pedagogical principles, I will lead a discussion on ways to incorporate online training while avoiding potential pitfalls

The effect of perception training with synthetic and natural stimuli on the identification of English vowels /æ/ and /ɛ/

Rosane Silveira & Elisabeth Ann Bunch Oliveira da Rosa

Perception is a crucial component in the acquisition of a second language (L2) regarding oral communication. Research has revealed factors that can often predict the specific difficulties for acquiring certain sounds in the L2. Vowels tend to pose a special difficulty, with the English vowel pair /æ-ɛ/ being particularly difficult for native Brazilian Portuguese (BP) learners, who may not distinguish the two as separate, but instead perceive them both as the vowel /ɛ/. Perception training with synthetic stimuli is one way to assist L2 learners in the formation of new vowel categories. Synthetic stimuli that control for vowel duration may be especially effective for this type of training, as it assists learners in developing appropriate cue weighting ability for the L2. Based on the discussion above, the present study investigates the effectiveness of synthetic versus natural stimuli for perception training on the ability of Brazilian learners of English to identify the vowels /æ-ɛ/. Fifty-six native Brazilian-Portuguese speakers and learners of English participated in this study. These participants were invited to participate through the social media platform, Instagram. The participants ranged in age from nineteen to forty-nine, and they ranged in proficiency from beginner to proficient user of English as an L2. The participants were divided into natural stimuli, synthetic stimuli, and control groups. The participants assigned to the natural stimuli experimental group received three perception training sessions with

recordings that did not have their duration altered. The participants assigned to the synthetic stimuli experimental group received four perception training sessions with recordings that had their duration altered to 350ms. Participants received perception training through the online platform Gorilla and completed pre and post training perception tests to measure their progress. Results indicate that perception training with both synthetic and natural stimuli is effective for the identification of /æ-ε/.

Cross-linguistic interference in second language vowels: Evidence from code-switching

Yuhyeon Seo, Daniel J. Olson & Yi-Fang Cheng

Code-switching is broadly defined as the alternation between two languages in a single utterance [3]. While most research on second language (L2) phonetics/pronunciation has examined the effects of long-term transfer (i.e., via acquisition or immersion), code-switching provides a unique opportunity to explore the influence of the L1 phonetic system on L2 pronunciation [6, 8]. Existing phonetic research on code-switching in L2 speech has predominantly relied on voice onset time, and significantly less work has studied cross-linguistic interference in vowels [1, 4]. The current study investigated the potential for cross-linguistic interference in the production of L2 vowels in code-switching situations, as a means to better understand the cognitive mechanisms that separate the two phonetic systems.

Thirty-seven Korean–English bilinguals participated in a controlled reading paradigm. Stimuli consisted of monolingual English, monolingual Korean, and code-switched utterances. Stimuli (N = 90) were controlled for phonetic environment and normed for naturalness and code-switching status [5]. The analysis focused on the production of the English [æ] and its Korean counterpart [e~ε], leveraging differences in vowel inventories [7]. Previous studies demonstrated Koreanspeaking L2 learners of English assimilate the English [æ] vowel to the Korean vowel [e~ε] [2]. It was hypothesized that cross-linguistic interference arising from code-switching may impact articulation, shifting the L2 English vowel towards the similar Korean vowel.

A total of 3,330 tokens were included in the final analysis (37 participants × 3 contexts × 30 stimuli). Results of LME models supported the hypothesis. English vowels in the code-switching context shifted towards the Korean vowels in terms of both vowel height and backness. These findings highlight the presence of cross-linguistic interference in code-switching in L2 speech, providing evidence to the code-switching literature in the phonetic domain. The current study concludes that code-switching can be another important factor in determining an accent in L2 speech.

Longitudinal Perception and Production Development of Second Language Vowels

Sebnem Kurt, In Young Na, Mahdi Duris, John Levis, Ivana Rehman & Charlie Nagle

Numerous studies in second language (L2) pronunciation have explored the relationship between L2 sound perception and production among adult learners. Research indicates that there

is a link between these two modalities, with perception potentially influencing production (Flege & Bohn, 2021), yet there is a need to understand the mechanisms underlying this relationship, how the relationship varies over time, across individual learners, and in regard to quantity and quality of L2 use (Bohn & Munro, 2007; Nagle, 2018; Piske, MacKay & Flege, 2001). Taking into account the influence of time as well as individual differences, this study investigates the developmental changes over 18 months (with four data points) in the relationship between perception and production. Participants were twenty-two nonnative graduate students studying at a Research-1 university in the US midwest. All the graduate professional students were tested for two things: their perception of nine vowel contrasts in an oddity task recorded by two male native English speakers, and their production of the same nine contrasts. As a measure of listener-based intelligibility (i.e., rate of accurate word identification across listeners), native English listeners were recruited from Prolific and assigned to complete a minimal-pairs forced-choice task evaluating the accuracy of vowel pronunciations from each of the four data points. The results showed that the graduate professional students showed the greatest improvement in production and perception within the first three data points (Months 1-6) and that there was less improvement at Month 18. Perception likely plateaued because the participants started at a high level of proficiency, but production leveled out despite having room for improvement. Their willingness to communicate in English did not correlate with greater vowel accuracy. As long as they were able to communicate successfully, their attention to pronunciation accuracy became less important to them.

Session 1D: STEW 279

Exploring the learnability of L2 rhythmic patterns: the case of Japanese learners of English

Marta Ortega-Llebaria, Jun Nagao & Leonidas Silva Jr.

This study explores the learnability of English rhythmic patterns by Japanese speakers of English. This L1-L2 context is especially interesting as the two languages are predicted to largely differ in their micro-rhythm – i.e., the duration variability of consonant and vowel intervals in a sentence (e.g., Dellwo 2006) – and macro-rhythm – i.e., the tonal rhythm measured as the distance between F0 peaks and valleys in a sentence (Jun 2014, Pretchel 2020) – such that Japanese has a more regular macro-rhythm than English, and English a stronger micro-rhythm than Japanese. A previous study (Anonymous) examining 10 2.5 minute English TED talks and their corresponding imitations by 10 Japanese English-learners showed that Japanese students experienced more difficulty acquiring micro- than macro-rhythm measures, in particular, micro-rhythm measures of vowel durations. In this follow up study we further analyze this one hour speech database by examining vowel duration in relation to three phonological patterns, namely content vs. function words, stressed and unstressed vowels, and final sentence lengthening. After normalizing for speech rate, results indicate that most participants accurately imitated the final sentence lengthening of their model TED talk. Over half of the Japanese students imitated accurately the shorter vowel duration of function words. However, only a few participants imitated accurately the duration differences between stressed and unstressed vowels within a word. In order to inquire the relation between these different vowel duration patterns and participants' imitation of sentence F0, these duration results were used as dependent variables in a series of regressions with macro-rhythm measures as fixed factors and participant and TED talk as random factors. In general, speakers with the most accurate imitations of duration in lexical stress were also the ones with more accurate imitations of F0 melodies suggesting that learning to imitate F0 melodies may require to first learn the duration cues of lexical stress. Implications for teaching will be discussed within Jun's prosodic typology (2014) and Levis Intelligibility Principle (2020).

Do you hear that? How L2 Spanish students perceive and produce declarative intonation before and after pedagogical intervention

Kendall Aycock

The current study utilized the Autosegmental Metrical theory and Mennen's L2 Intonation Learning theory to explore how at-home intermediate L2 learners of Spanish perceive the final boundary tone in Spanish broad focus declaratives (BFDs) and to determine whether they produce uptalk in BFDs. Prior to pedagogical intervention, participants completed two tasks. The first was an ABX perception task to determine whether they could distinguish Spanish BFD intonation from statements containing uptalk. For each task item, the student listened to an audio recording and was asked which recording it was most similar to out of two others. One

recording was a BFD containing delayed prenuclear peaks and a low boundary tone, whereas the other recording contained uptalk (a final rising boundary tone resembling an absolute interrogative). Next, students completed a reading task in which they read a series of Spanish BFDs.

After the pretest, pedagogical intervention was employed over two weeks through a series of 2 asynchronous and 1 synchronous lessons on intonation delivered in the online classroom environment. Then a posttest was completed one week later, which consisted of another ABX perception task and an additional sentence reading task. Pretest and posttest results of the perception task were compared to determine if explicit pedagogical intervention increased learners' awareness of differences in boundary tone realization of Spanish BFDs and statements containing uptalk. Additionally, production task recordings were compared to determine whether participants produced BFDs in a more target-like manner after lessons.

Results showed pedagogical intervention improved students' perception of differences in intonation between Spanish BFDs and uptalked statements. Furthermore, participants produced less uptalk in BFDs after receiving lessons focused on characteristics of Spanish neutral declarative intonation. These findings encourage dedicating classroom time to instructing students on suprasegmental patterns of Spanish so that they produce L2 utterances in a more target-like manner.

Syntactic-Prosodic Interface in Elementary Spanish Learners

Marta Ortega-Llebaria & Sebastian Leal-Arenas

Sentence intonation is a missing component in L2 curricula due to insufficient research and teaching materials. Spanish and English express thematicity and narrow focus using different parameters: word order and intonation, respectively. English learners of Spanish need to suppress their intonation and adopt a word-order strategy. Previous research has shown that advanced learners adopt a syntactic strategy to express thematicity, but in narrow focus contexts (Nava, 2007; Zubizarreta & Nava, 2011). Elementary learners systematically use English word order (Hertel, 2003). The present study explores the effects of direct instruction to elementary Spanish language learners on the use of word inversion as a means of expressing thematic-categorical and subject-verb focus contrasts. Specifically, we investigate whether the acquisition of word order inversion leads to the adoption of Spanish intonation by native speakers of English. English learners of Spanish (experimental N=20; control N=10) were part of a pre- and post-test design, in which they had to observe contextualised images and utter a sentence to answer questions that elicited all four meanings in Spanish and in English. The experimental group received 9 training sessions between the tests. Results indicate that explicit instruction of syntactic inversion improved participants' performance by 20% in thematic statements ($\beta = 1.9092$, $p < .001$) and by 40% in subject focus sentences ($\beta = 1.8087$, $p < .001$). In terms of acoustic correlates to intonation (duration, intensity, F0 peak), post-test results show that duration and intensity tend to be neutralised in both groups. F0 contours differ in the experimental group based on the number of intonation groups in their utterances. Pedagogical implications of these findings emphasize the

importance of explicitly teaching meaning-based prosody to elementary learners, for the acquisition of syntactic and prosodic features at an earlier stage is possible.

Prosodic training in French as a Foreign Language: Impact on speech rhythm, comprehensibility, and speech segmentation abilities

Lucie Drouillet, Charlotte Alazard-Guiu & Corine Astesano

Teaching pronunciation in foreign language classes remains a marginal practice, especially for what concerns prosody (Darcy, 2018). In French as a Foreign Language (FFL) classes, usually a very small part is dedicated to working on segmental features at best. Prosody, however, is too often completely disregarded (Santiago, 2019). Still, more and more research show the importance of prosody and its fundamental role in oral language processing, on both the production (intelligibility and comprehensibility) and the perception (speech segmentation and listening comprehension) sides (Derwing & Munro, 2005; Luu et al., 2021; McAndrews, 2021). Several studies have now shown the benefits of a prosodic training on fluency, rhythm, comprehensibility, and listening skills, over general oral comprehension and production activities (Saito & Plonsky, 2019). However, such studies are mostly focused on English as a Second Language. Very few data are available on the acquisition of French, and equally very few resources are available to teachers to work on prosody in the classroom. The present study is a step towards bridging this gap by experimentally testing the impact of an explicit prosodic training in FFL on learners' speech rhythm, comprehensibility, and speech segmentation abilities. 10 native English speakers learners of French (A2-B1 level) were split into two groups. They attended 12 hours of French classes, 1.5 hours twice a week for four consecutive weeks. One group did oral production and listening comprehension activities while the other was trained on French prosody through perception and production exercises on rhythm, accentuation, intonation and boundary placement (pauses). Pre- and post-test tasks included production tasks (reading and free speech) and a listening task (repetition). Acoustic measures of fluency and rhythm, comprehensibility scores, and segmentation scores were extracted and compared within-speaker (pre-post-tests) and between groups. Results are expected to highlight the benefits of the prosodic training over regular oral production and listening comprehension activities.

Session 2

Thursday, Sept. 7, 2:00pm – 3:25pm

Session 2A: STEW 214

Comprehensibility and the acoustic contrast between tense and lax vowels in the Mandarin-accented English speech

Chien-Min Kuo & Olga Dmitrieva

Comprehensibility of second language (L2) speech refers to the subjectively evaluated degree of effort necessary for understanding speech. As such, comprehensibility is an important determinant of successful spoken communication by L2 speakers (Derwing & Munro, 1997; Munro & Derwing, 1995). Previous work considered non-phonological properties, such as lexical, grammatical, and discourse-level factors, as well as impressionistically determined macro-scale pronunciation errors and global prosodic factors, such as segmental substitutions, deletions, or insertions, or word-stress errors (Derwing et al., 1998; Derwing & Munro, 1997; Isaacs and Trofimovich, 2012; Isaacs & Thomson, 2020; Saito, Trofimovich & Isaacs, 2017) as predictive of speech comprehensibility. Comparatively little is known about the way acoustic realization of specific phonological contrasts influences comprehensibility. The present study investigates the link between comprehensibility and the realization of the contrast between tense ([i] and [u]) and lax ([ɪ] and [ʊ]) vowels in Mandarin-accented English speech.

This study includes a group of Mandarin speakers of English (N=40) and a group of native English speakers (N=144). Mandarin participants perform a production task, reading aloud meaningful English sentences with target words (N=48) containing tense and lax vowels. Duration and spectral properties of the target vowels are measured and used to establish the degree of acoustic contrast between lax and tense vowels. The native English speakers perform a perceptual rating task, evaluating the comprehensibility of the Mandarin speakers' sentences on a visual analogue scale, from 'easy to understand' to 'difficult to understand'. The analysis will examine the degree of correlation between comprehensibility ratings and the magnitude of the spectral and durational contrasts between tense and lax vowels in non-native speech. It is predicted that greater spectral and/or durational contrasts will correlate with higher comprehensibility ratings, providing evidence that acoustic contrast between contrasting categories is linked to the degree of effort involved in processing nonnative speech.

Effects of Japanese Prosody on Comprehensibility: A Comparison of Techniques for Training L2 Japanese Prosody

Masako Shimada

Adult language learners often produce second language (L2) speech with a foreign accent. Recent studies have shown that prosodic features, such as stress, duration, and changes in pitch, have a great influence on the perceived strength of a foreign accent and—more importantly—on listeners’ understanding. Thus, improving these aspects of speech may lead to more successful communication.

Japanese relies heavily on prosodic cues to distinguish meaning. For example, words can contrast in duration, such as *kori* “stiffness” vs. *koori* “ice”. Different accent patterns also disambiguate meaning, such as *ka’ta* “shoulder” with a high pitch followed by a low pitch (HL) vs. *kata* (LH) “form”. Despite the importance of prosody, research on L2 Japanese prosody teaching has advanced little. In the current study, therefore, I developed prosody training using two methods: embodied techniques (ET) and computer-assisted techniques (CAT). Training was incorporated into a pretestposttest-delayed posttest design to (1) investigate the extent to which the accuracy of L2 perception and production of Japanese prosody changed over the course of the experiment; (2) compare the effectiveness of the two methods; and (3) examine whether improvement, if observed after training, was sustained over time. Seventeen English speakers with intermediate L2 Japanese proficiency were placed in one of two groups: ET or CAT. They received prosody training for three weeks using one of the two types of techniques. Participants also completed perception and production tasks, which required them to listen to and produce words with different accent patterns and segmental length distinctions. Their performance was evaluated by 18 Japanese listeners for intelligibility and comprehensibility.

The findings indicate that both L2 perception and production steadily improved after training for both groups, highlighting the positive effects of training with both methods. Raising awareness and providing focused instruction likely led to the success.

How Many and What Kind of Raters are Needed for Intelligibility, Comprehensibility, and Accentedness Research: A G Theory Analysis

Kevin Hirschi & Okim Kang

As Second Language (L2) pronunciation research has transitioned from native-like goals towards targeting comprehensibility and intelligibility, the listener has become a central component in research on L2 speech. However, rater panel designs employed in such studies have varied greatly in terms of the number of raters, the number of target stimuli they listen to, and raters’ linguistic expertise, concomitantly raising questions about construct representation (Isbell, 2017; Kermad & Bogorevich, 2022; Saito et al., 2022). To address issues related to score generalizability, this study seeks to establish rater panel guidelines through G(-eneralizability) Theory (Cronbach et al., 1972; Shavelson & Webb, 2006), a statistical approach that estimates components of observed and theoretical reliability across rater facets. Using six datasets of L2 learner speech rated for intelligibility, comprehensibility, and accentedness ranging in size from 5 to 121 listeners, generalizability and dependability studies are conducted on ratings by undergraduate students, MTurk crowdsourced listeners, and trained linguistics experts. The results of a dependability study in R following Huebner and Lucht (2019) indicate that accentedness and comprehensibility require about 60 naïve listeners to achieve a .90 generalizability coefficient for naïve or crowdsourced listeners, but about half as many trained raters can arrive at the same level of dependability. Intelligibility requires about ten listeners for

reliable estimates when using a transcription approach, but all listener estimates are reduced when multiple audio samples per recording are included in the design. The implications for L2 speech researchers include an empirically-informed guideline for listener panel designs for speech constructs such as intelligibility, comprehensibility, and accentedness. They also offer a deeper understanding of the use of trained vs. naïve listeners, and steps for researchers to conduct and interpret their own G theory studies for other listener measures of interest in various L2 speech perception studies.

Session 2B: STEW 218

Teacher Perception of Intelligibility and its Implementation in Pronunciation Teaching

Anita Greenfield & Suzanne Franks

As is true in language education, the gap between research and teaching practices in L2 pronunciation (Wahid & Sulong, 2013) is especially problematic seeing as important concepts, such as intelligibility, have not always been well defined. Although intelligibility has gained importance as a teaching and assessment construct (Isaacs, 2018), no widely accepted and accessible definition is available. While scholars have examined and debated about the factors contributing to intelligibility (Levis, 2018), until now, its implementation by teachers has been mostly ignored.

Previous research on pronunciation education has focused on EAL practitioners who are not necessarily trained in pronunciation teaching nor familiar with the concept of intelligibility (Bøhn & Hansen, 2017; Couper, 2017; Foot, Holtby, and Derwing, 2011). Survey-based research on nativelikeness or intelligibility commonly focus on teachers' attitudes, but rarely address implementation. Presenters examine how teachers of pronunciation courses approach intelligibility as a construct in their teaching and assessments.

22 experienced teachers responded to a 26-question survey about their teaching beliefs and practices related to intelligibility. Preliminary results show that although responses strongly indicated a belief in the importance of intelligibility ($M=4.5$; $SD=.60$, on a 5-pt. scale) as a goal in pronunciation instruction, respondents were less confident in their ability to assess intelligibility ($M= 3.1$; $SD=.75$). Survey respondents also reported a slightly stronger belief that suprasegmental features are important for intelligibility compared to segmentals. Additionally, a subgroup of 12 respondents participated in a semi-structured interview with one of the researchers. Discourse analysis (Wortham & Reyes, 2015) of the interviews and open ended survey questions and descriptive statistics are used to elucidate the gaps between the current research on intelligibility and classroom practices.

Insights gained from this research will benefit language teachers, teacher trainers, materials developers, language testing specialists, and SLA researchers.

What pronunciation errors do instructors address in the L2 Spanish classroom?

Germán Zárate-Sández

Not all second language (L2) pronunciation errors are equally relevant for intelligible speech (Levis, 2018; Derwing & Munro, 2015). Little is known, however, about what pronunciation errors instructors identify in learners' speech and how they react to these errors, especially for L2s other than English. For these reasons, this paper seeks to answer the following

RQs: (1) What type of Spanish pronunciation errors do instructors identify in learners' speech in a classroom context? and (2) What criteria do instructors use to identify errors?

Data were collected from videorecorded Spanish classes and stimulated recall interviews. Five novice instructors were videorecorded while teaching five hours each of second-semester Spanish at a US university. Recordings were transcribed and analyzed based on learners' speech addressed to the instructor and the instructor's reactions (if any) to this speech, producing 127 minutes of classroom speech for analysis. Pronunciation errors were operationalized as those issues in learners' speech to which instructors reacted, as evidenced by recasts, reformulations, or explicit corrections. Errors were classified into segmental (e.g., substitutions, deletions, insertions) or suprasegmental (e.g., stress shifts). Stimulated recall interviews shortly after each class gathered information as to why instructors reacted to learners' issues (RQ 2). Instructors were also asked about those occasions when they did not react to common pronunciation errors (e.g., substituting the trill for the tap).

Results yielded 51 errors identified by instructors. Segmental issues constituted 78% of the total and were composed mostly of expected issues (e.g., pronunciation of grapheme <h>) but also less expected ones, such as vowel substitutions. Instructors also addressed a relatively high number of stress-related errors (22% of total). Stimulated-recall interviews revealed some of the reasons why instructors reacted to some errors but not to others. Typically, they noticed several errors but addressed only those that interfered with ongoing communication. The paper ends by discussing how teacher classroom practices can shed light on what constitutes intelligible L2 speech.

The role of pronunciation in LCTL classrooms: The training and practices of US-based instructors

Dustin Crowther & In Ji Sera Chun

The extent, or lack thereof, to which language instructors are prepared to address pronunciation in the classroom is well attested (e.g., Foote et al., 2011; Huensch, 2019). However, current emphasis has been primarily on English and commonly taught languages in the US (French, German, Spanish). In recent years, less commonly taught languages (LCTLs) have received increased scholarly focus. Such languages (e.g., Filipino, Japanese, Mandarin) are of interest given the documented dearth in qualified instructors and shortage of quality instructional materials (e.g., Gor & Vatz, 2009; Wang, 2009). Our study employs questionnaire and interview methods to better understand the instructional training and teaching beliefs of a population of LCTL instructors, particularly in reference to knowledge and treatment of pronunciation.

LCTL instructors at a US-based English-medium university that hosts 28 foreign languages with four-semester course sequences will complete a modified version of Huensch's (2019) pronunciation instructional training questionnaire. Modifications extend inquiry beyond pronunciation to include grammar and vocabulary. The questionnaire includes scalar and openended items which target instructional training, skill-specific instructional beliefs, and classroom practices. Descriptive statistics will present a general sense of response patterns, with inferential statistics used to consider cross-LCTL differences between instructor populations. A

subset of LCTL instructors will be interviewed to gain a more in-depth understanding of their instructional training and classroom practices.

An initial pilot study with 10 instructors of Filipino, Japanese, Mandarin, and Vietnamese indicated that instructors, the majority of who had completed MA-level coursework in foreign language teaching, possessed less formal training for pronunciation than other language skills and less confidence implementing pronunciation into their classroom practice. Despite lower confidence, instructors did not strongly desire further training. Extended questionnaire and interview responses to be gathered in spring/summer 2023 will allow for more insight into developing trends, while simultaneously allowing for more language-specific interpretations of findings.

Session 2C: STEW 278

Pronunciation instruction & implementation in Spanish curriculum: History & current state

Jhonatan Carmona Tangarife, Camila Naiquén Bracamonte & Heather Offerman

More than two decades ago, it was found that pronunciation instruction in 10 widely used textbooks for elementary-level Spanish was either minimal or non-existent (Arteaga, 2000). Additionally, four of 10 textbooks that did contain pronunciation-related materials included erroneous information (conflating English with Spanish features, for example). Since Arteaga's (2000) seminal study, research has addressed pronunciation having been widely ignored in the curriculum at the time (Derwing & Munro, 2005; MacDonald, 2002), along with numerous studies testing a wide range of pronunciation methodology (Miller, 2012; Yoshida & Fukada, 2014), with some more specifically focusing on Spanish (Kissling, 2013; Lord, 2005; Olson, 2014; Olson & Offerman, 2021). With the recent developments of pronunciation materials, it is crucial to (1) determine whether current curriculum has begun to incorporate pronunciation instructional materials into current textbooks and (2) assess to what extent (quantity, accuracy, and relevancy), if any, pronunciation instructional materials have been implemented. The current study focuses on the analysis of 10 beginner-level, Spanish textbooks. Analyses include calculating the total percentage of pronunciation materials included in each textbook, as well as determining the accuracy and relevancy of materials (Arteaga, 2000). Results reveal that four of the 10 textbooks include no information regarding pronunciation, while six textbooks contain less than 2.5% of textual real estate dedicated to pronunciation instruction. Moreover, similar findings to Arteaga (2000) show that multiple explanations in the six textbooks are inaccurate (equating English /a,e/ with Spanish /a,e/, for example) or are lacking in relevancy (e.g., addressing vowel linking [sinerisis and sinalefa], common in advanced speech processes in Spanish; Hualde et al., 2020). Findings indicate little progress in the last 20 years, reflecting a large disconnect between current research and Spanish pedagogical tools. Strategies will be proposed for incorporation of how and what type of activities should appear in current curriculum.

Exploring Chilean pre-service EFL teachers' reactions to lecturers under different face/voice conditions

Masatoshi Sato, Kim McDonough, Rachael Lindberg, Sadie Sitges & Pavel Trofimovich

Previous reverse linguistic stereotyping research has shown that proficient speakers of English may receive more negative evaluations from university students when their voice is paired with an Asian face instead of a Caucasian face (Kang & Rubin, 2009). However, students in diverse urban settings tend to react strongly to accents regardless of the speaker's appearance (McDonough et al., 2023). These studies, however, focused on the perceptions of university students rather than prospective ESL teachers who may be less likely to view non-L1 accents

negatively. Therefore, this study explored how preservice EFL teachers in a Chilean university (N = 101) reacted to lecturers under different face/voice conditions. The participants were L2 learners of English themselves. First, they viewed images of instructors (Asian or Caucasian) accompanied by simplified resumes. They rated the instructor's potential quality as an L2 teacher (e.g., "I think this teacher is a good teacher.") along with their language skills (e.g., "I think this teacher will be easy to understand."). Second, they listened to a 30-second lecture (e.g., biology) given by the person, either with L1-English or L2-English accent, and evaluated the same teacher again. The analysis focused on two comparisons: (a) the difference in ratings between before and after listening to the lecture, and (b) the difference among four sets of face-accent combinations. Results of ANOVAs showed that the Chilean pre-service EFL teachers evaluated the teaching quality of the lecturers based on their voices more than their faces. That is, the lectures with L2-English accent were evaluated more negatively regardless of their faces. We discuss the powerful influence of biases associated with L2 accents in the context of L2 teaching and teacher education and argue that combating such biases is crucial for English teachers in removing native-speakerism held by their students and themselves.

Meaningless parrot-like practice or an effective technique? Shadowing as a method of L2 pronunciation progress

Ewa Kusz, Zoë Zawadzki & Kate Challis

Although shadowing is known as one of the most popular and successful methods in L2 pronunciation improvement (Foote & McDonough, 2017), current research paths have mainly been focused on L2 English (Pardo et al., 2018). Our aim in this study is to extend imitation and shadowing research to L2 Polish learners whose L1 is Ukrainian. The next goal of our study is to determine the extent to which shadowing influences L2 Polish speakers' comprehensibility, fluency, and accentedness and to measure the improvement in these areas. 35 participants with an A2 level of Polish shadowed dialogues from popular Polish TV shows and TED talks twice a week for four weeks. To track their progress in comprehensibility, fluency, and accentedness, participants took a pre-test, immediate post-test, and delayed posttest. We also investigated the relationship between the participants' level of motivation in learning Polish as a second language and their improvement in comprehensibility, fluency, and accentedness. In order to measure motivation, the participants were surveyed about their reasons for learning Polish, how important it is for them to learn Polish, and their long-term plans to stay in Poland. Comprehensibility, fluency, and accentedness were rated by naïve Polish speakers on a nine-point Likert scale. The results obtained from our study indicate that Ukrainian learners of Polish improved their pronunciation skills; however, after shadowing practice, motivation levels varied based on the fact that most of the subjects were forced to flee from Ukraine to Poland because of the ongoing war. The results from this study demonstrate a relationship between motivation and pronunciation improvement and that shadowing can be effective in languages other than English.

Session 3

Thursday, Sept. 7, 3:45pm – 5:15pm

Session 3A: STEW 214

Native and Nonnative Listeners' Judgments of Segmental Accuracy and L2 Intelligibility

In Young Na

Previous studies have indicated the negative impact of L2 speakers' consonant and vowel accuracy on listeners' level of actual understanding (i.e., intelligibility), some segment distinctions being proposed to have a greater impact (e.g., Munro & Derwing, 2006). This line of research, however, has primarily relied on native listeners' perceptions, with little consideration paid to those by fellow L2 users. Considering the current global trend towards L2 use among nonnative speakers, the decision to rely on native speakers is questionable. The current study investigated the contribution of listener factors – listeners' status (native, nonnative) and L1 – and stimulus properties (segmental accuracy) to L2 speech perception. Thirty-nine listeners from five L1 backgrounds (English, Korean, Mandarin, Indonesian, Turkish) completed a minimal-pair forced choice task for recordings by twenty Korean EFL talkers; the percentage of accurate word identification was measured. Segmental accuracy was measured by error coding of ten target phonemes. Moderate to strong intergroup correlations on listener scores suggested similarities in listeners' perceptions regardless of L1 background with little evidence for interlanguage speech intelligibility benefit (ISIB). Native-English speaking listeners outperformed Korean listeners who shared an L1 with the talkers for consonants; for vowels, both Mandarin and Korean listeners outperformed English-speaking listeners. Consonant errors were negatively correlated with intelligibility scores, while vowel errors, even though they were pronounced less accurately, showed weak and nonsignificant correlations with intelligibility. The effect of stimulus properties will be discussed in relation to the role of L1 Korean-specific interlanguage features in listeners' perception of L2 speech. Problematic speech sounds empirically identified in the study can inform teacher decisions for pronunciation teaching.

Relationship between connected speech processes and utterance fluency in L1 and L2 read speech

Jimin Kahng & Abner Tian Zhang

Fluency constitutes a critical component of second language (L2) oral proficiency. The majority of recent L2 research on utterance fluency (UF) relies on the Skehan's three-dimensional model—speed, breakdown/pausing, and repair fluency. Although fluency has been suggested to be also linked to other aspects of speech such as linking (Hieke, 1984), the relationship between connected speech processes (i.e., how sounds change when words are spoken in context) and UF has rarely been examined. The current study aims to fill the gap in the

literature by investigating 1) the frequency of connected speech processes (e.g., linking, reduction, and deletion; Alameen & Levis, 2015) in read English speech produced by L1 and L2 speakers, 2) the relationship between the use of connected speech processes and UF measures (speed, pausing, and repairs), and 3) the extent to which UF measures (e.g., mean syllable duration, frequency of mid-clause and end-clause pauses) of L1 and L2 speech can be predicted by connected speech processes used in speech.

Forty-four L1-Chinese L2-English speakers read the passage of Weinberger's speech accent archive. In addition, 30 speech samples produced by American English speakers were used in the analysis. The speech samples were analyzed for UF features and connected speech processes. The results show that compared to L1 speech, L2 speech was significantly slower (mean syllable duration) and had significantly more mid-clause silent pauses, repetitions, and repairs, whereas L1 speech had significantly more connected speech processes—linking, reduction, and deletion. Multiple regression analyses revealed that linking and reduction predicted 48% of the variance of L1 mean syllable duration whereas linking predicted 21% of that of L2 mean syllable duration. The findings and examples of connected speech processes in L1 and L2 speech will be discussed in line with their potential role in fluency.

Session 3B: STEW 218

K-12 Teachers' Vowel Production

Jacquelyn James

Previous studies investigating the vowel production of L2 Spanish speakers label their participants speakers of American English even though vowel inventories and realizations vary widely across different dialects. In their study of L2 Spanish vowel production, Menke & Face (2010) measure the first two formants of each vowel produced by participants at the midpoint, which, according to Fox and Jacewicz (2009), does not capture “the extent and nature” of changes that occur throughout the vowel which can “contribute to regional variation in American English” (p. 2604). Indeed, there are several processes that have become stereotypical of Southern American English speech including diphthongization and triphthongization, which would not be captured by only measuring formants at the midpoint (Thomas, 2004). These differences in pronunciation can affect the way that learners produce vowels in Spanish, where there are significantly fewer phonemes than in English and the production of those phonemes is stable and monophthongal (Schwegler & Ameal-Guerra, 2019).

To investigate this, the vowel production of speakers of Southern American English who teach Spanish as a second language to high school students was analyzed and compared to the production of native speakers of Spanish. Participants completed a reading task and a sociolinguistic interview, both in Spanish. Twenty tokens of each of the five Spanish vowel phonemes were extracted from both the reading task and the sociolinguistic interview and analyzed in Praat (Boersma & Weenink, 2023). The first and second formants were measured at 3 equidistant points in order to capture formant movement throughout the segment. Results indicate that speakers of Southern American English who are also highly advanced speakers of Spanish do not produce diphthongs and triphthongs in their second language in either careful or informal speech. This paper contributes to our understanding of L2 vowel production in Spanish by studying an under-researched population.

Iranian Teachers' Cognitions and Practices: Oral Corrective Feedback on Pronunciation Errors

Payam Rahmati, Mohammadreza Dalman & Hooman Saeli

Teachers' cognitions and practices of corrective feedback (CF) on pronunciation errors is an important area of inquiry which has received little attention in the literature (Baker & Burri, 2016; Couper, 2019). Therefore, it is largely unknown how second language (L2) teachers perceive and provide CF on their learners' pronunciation errors. To gain a deeper insight into teachers' cognitions and practices, it is important to investigate how teachers' background factors shape teachers' cognitions and practices. In the current study, we investigated how teachers' background factors related to teaching experience (i.e., years and contexts of teaching experience, prior teacher training, and level of academic education) would shape their cognitions and practices regarding CF on pronunciation errors. Participants were 346 teachers recruited

from Iran to complete an online survey. The survey elicited teachers' background information and measured their perceptions and practices of corrective feedback on pronunciation errors. Results of the quantitative analysis showed that teachers' education level, ESL teaching experience, and previous training shaped the way they provided CF on their students' pronunciation errors. The analysis of open-ended data pointed to the following thematic categories: that Iranian EFL teachers value nativelike pronunciation, that they use CF to help their learners achieve nativelike pronunciation, and that their CF often targets segmental errors. These results suggest that the teachers' cognitions and practices regarding pronunciation are not always aligned with the recommended feedback practices. For example, it is suggested that feedback should focus on improving intelligibility (Saito & Lyster, 2012) and address both suprasegmental and segmental errors. We think teachers would appreciate the importance of intelligibility and feedback on suprasegmental features if they are provided with professional development workshops. Such workshops can help Iranian EFL teachers shift their attention from nativelike pronunciation to intelligibility.

Beyond the resumé: HR students' evaluations of L1 and L2 job candidates' interview performances

Cesar Teló, Pavel Trofimovich, Thao-Nguyen Nina Le, Anamaria Bodea & Mary O'Brien

Like the general public, individuals making high-stakes decisions, including teachers, judges, and human resource (HR) professionals, may show covert or overt biases against second language (L2) speakers, downgrading them in professional evaluations (Spence et al., 2022). We extended this work by investigating how university students training to be HR specialists evaluate simulated job interview performances by first language (L1) speakers of English, Arabic, and Tagalog (two per background). Eighty HR students enrolled in 4-year HR management programs in Calgary and Montreal (40 per location) evaluated the employability of speakers applying for two positions (nurse, math/science teacher) at four points in the interview (after reading the applicant's resume, after hearing their self-introduction, and after listening to each of two 1-minute responses to interview questions). Applicants' responses additionally varied in quality (high vs. low) in terms of how meaningfully they addressed the questions. Generalized mixed-effects models, which controlled for speaker comprehensibility and several student background variables (e.g., accent familiarity, HR coursework), showed that the Montreal and Calgary students did not differ in their evaluations, that employability ratings were similar for both advertised positions, and that high-quality responses elicited consistently high ratings while evaluations for low-quality responses (predictably) declined. With respect to the applicant's language background, all speakers were evaluated similarly based on their resumes and self-introductions. However, their evaluations diverged once the students listened to interview responses, where L1 Arabic and Tagalog speakers were considered more employable than L1 English speakers. Importantly, the students showed this preference for L2 speakers regardless of interview response quality (high vs. low). Results suggest that HR students may be aware of L2 speakers' potential disadvantages in the workplace and that they might "hypercorrect" for this imbalance by rewarding L2 speakers in their evaluations. We discuss implications of these findings for HR professionals and educators.

Session 3C: STEW 278

The functional load of Brazilian Portuguese phonemes and implications to teaching

Mariana Centanin Bertho

Functional load can be understood as a measure to determine how much meaning a linguistic item produces in a language. In English, Catford (1997), Brown (1998), and Gilner and Morales (2010) presented a ranking of English phonemes based on the frequency of a phoneme (or a phonological contrast) in English. The functional load of a phoneme or phonological contrast is, therefore, a relative value (0-1) that shows how much that sound (or contrast) occurs in the lexicon. Such findings can inform second language teaching and curricular decisions on which sounds and contrasts should be prioritized. Levis and Cortes (2008), for instance, argue that the functional load of minimal pair items is not the only information that matters when deciding what to teach, but also the grammatical category and semantics of such items.

Languages other than English, however, lack the same reference studies. This presentation will share the results of a functional load analysis of spoken Brazilian Portuguese based on Guilner and Morales' (2010) methodology. The frequency list of 13,083 unlemmatized items from the C-ORAL-Brasil corpus (Raso & Mello, 2012) was phonologically transcribed using an automatic transcriber (Marquiafável et al., 2011). Then, the frequency of each phoneme was calculated and a relative value from 0-1 was attributed to them. Preliminary results reveal that sounds that build many minimal pairs in Brazilian Portuguese are in the opposite position in the rank, e.g. while the FL of /s/ is 1, the FL of /z/ is 0.26; while the FL of /e/ is 0.68, the FL of /ɛ/ is 0.2. In spite of its role in the formation of minimal pairs, low functional load sounds can potentially be less salient to learners. Therefore, such findings could better inform decisions in the instruction of Portuguese pronunciation.

Sociophonetic development in the classroom: Exploring a task-based intervention

Megan Solon & Stacey Hanson

Comprehension of variable phonetic features is vital to developing the ability to communicate in a second language (L2; Geeslin & Long, 2014; Schmidt, 2009). Classroom input, however, often lacks the variety of communicative contexts and speakers to naturally expose learners to target language sociolinguistic variation (Geeslin & Long, 2014). Language learning tasks (Ellis, 2003), given their focus on language use in meaning-based contexts, offer a potential avenue for integrating sociolinguistic variation into the L2 classroom. This study explores the impact of task-based classroom exposure to variable weakening of Spanish coda /s/ (e.g., comes “you eat” as [kó.mes], [kó.meh], or [kó.me]) on learners’ ability to perceive and categorize native Spanish speakers’ variable /s/ productions and investigates the potential role of task condition—open (multiple possible solutions) versus closed (one possible solution; Lee, 2020) in mediating this impact.

Participants were 241 L2 Spanish learners enrolled in 18 intact First-Year Spanish classes at a US university. All participants completed the Spanish EIT (Bowden, 2016), an /s/ categorization pre-test (Schmidt, 2018), a pedagogical intervention, an /s/ categorization post-test, and a language background questionnaire. For the intervention, participants listened to a series of “voicemail messages” and completed a corresponding task/activity. Each class was randomly assigned to one of eight conditions that crossed phonetic content of task materials (coda /s/ as [s] or [h]) with four task conditions (open task, closed task, true/false activity, no related task/activity). Differences in /s/ categorization patterns by phonetic content and task condition were explored using repeated-measure ANOVAs. Preliminary results suggest that learners exposed to weakened /s/ in task materials made greater gains in categorizing phonetic [h] as a variant of /s/, with few differences observed by task condition. Findings suggest that classroom exposure to sociophonetic variation can impact immediate categorization patterns; implications for future research on development will be discussed.

Session 4

Friday, Sept. 8, 9:30am – 11:25am

Session 4A: STEW 214

Production of Mandarin tones by Thai preschool children

Yu-Fu Chien & I-Ping Wan

Cross-linguistic studies on acquiring lexical tones generally agreed that level tones are acquired earlier than contour tones (e.g., Tuaycharoen, 1977; Mandarin: Wan & Yang, 2017). For Mandarin, it has been shown that children acquire high-level tones (tone1) earlier than high-falling tones (tone4), followed by low-falling tones (tone3) and rising tones (tone2) (e.g., Wan & Yang, 2017). For non-tone language learners, Mandarin tone2 and tone3 are the most challenging (e.g., Tsai, 2008; Huang, 2014). However, Thai learners, who also have a tone language background, showed minimal difficulty producing Mandarin tones (Chen, 2011).

In this study, fundamental frequency (F0) data were drawn from a spoken corpusbased study of 11 Thai preschool children who learned Mandarin as their foreign language at Thai-Chinese International School in Bangkok, Thailand (8 boys, 3 girls; M=5.455 age, SD=0.688). Growth curve analysis was conducted to compare the F0 contours of the four Mandarin tones produced by the children and instructor in the first and last sessions (1 session per day; 9 sessions total), and in the first-syllable and final positions of disyllabic and trisyllabic words. Results showed that the children's tone1 was not statistically different from the instructor's in shape for some comparisons, while the two groups significantly differed in tone2, tone3, and tone4 contours for the remaining comparisons. Specifically, the children's tone2, tone3, and tone4 were flatter than the instructor's. Moreover, the children's tone2 lacked an early dip and their tone3 of the final syllable lacked a late rise. Overall, Thai children's tone1 contour was the closest to the instructor's, followed by their tone4 and tone3. Tone2 was the most challenging tone.

Articulatory theory, physiological efforts, phonetic cues, Markedness constraints, and influence from the instructor's speech may provide some explanations for the interlanguage tone patterns in Thai preschool children.

Cross-sectional comparison of pronunciation skills of children in one-way and two-way immersion programs

Tetsuo Harada & Asako Hayashi-Takakura

Immersion education comes in two types: one-way immersion (OWI) and two-way immersion (TWI). OWI refers to the model in which children who speak a majority language learn both language and content in a second language, whereas TWI, with the same instructional goals, allows a balanced number of students from each target language group to

be enrolled in the same classroom. Though general second language proficiency in OWI and TWI is well documented (e.g., Lindholm-Leary & Genesee, 2014) and TWI, with more input expected from target language peers, may have beneficial effects on pronunciation, very few studies have been done (Menke, 2014, 2015; Netelenbos, Li, & Rosen, 2016). To investigate effects of the contact of learners of Japanese as a world language (JWL) with Japanese dominant bilinguals in the TWI classroom on the learning of Japanese pronunciation, this study compares JWL learners in OWI and TWI in the US. It focuses on the production of Japanese singletons /p, t, k/ and geminates /pp, tt, kk/. 15 and 27 JWL children (English dominant bilinguals) from OWI and TWI respectively were asked to read words including the target voiceless stops in Japanese in a sentence frame. Baseline data were also collected from 23 learners of Japanese as a heritage language (JHL) in the same TWI program. The closure duration was acoustically measured for both singletons and geminates and was cross-sectionally compared among the three groups using ANOVA. Results showed that although both OWI and TWI children in grades 1 to 3 produced both stops with longer closure duration than the JHL group (i.e., overshooting), only the TWI group reached the JHL norm by grades 5 to 6. The findings can be accounted for by a cumulative amount of continuous target-like input from and interaction with the JHL peers in the TWI program.

Pronunciation instruction for Japanese elementary school children in the early stage of English learning: Enhancing FL learners' perception, production, and engagement

Kyoko Hitomi

Some researchers (e.g., Nakamori, 2006; Zielinski & Yates, 2014) point out the importance of receiving pronunciation instruction from the initial stage of a second language (L2) learning to prevent L2 sounds from becoming identical to learners' first language sounds. However, Japanese children in the beginning stage of learning English rarely receive systematic pronunciation instruction at elementary schools. This action research aims to fill this gap, investigate changes in learners' perception and production of English sounds after instruction, and explore the feasibility of providing pronunciation instruction to children. The author conducted online pronunciation instruction for one school semester (14 weeks) to 20 middle elementary school students (Mean age = 9.2 years old), targeting ten sounds (/s, æ, t, p, ɪ, n, k, ε, ɪ, l/). The instruction was conducted using a communicative framework of teaching English pronunciation (Celce-Murcia et al., 2010), combined with multisensory teaching and feedback. Blending and segmenting activities were also implemented in the class to improve phonological awareness. The results of perception and production tests showed changes in learners. The listening discrimination test, which investigated the discrimination ability of consonant pairs (/l/ and /ɪ/) and vowel pairs (/ε/ and /æ/), showed that the children gained a discrimination ability one month after the instruction. The production test, consisting of ten words using the target sounds, also showed statistically significant changes in the scores of intelligibility and comprehensibility between the pre-and post-test and between the pre-and the delayed post-test given one month after. Qualitative data including questionnaires for parents and children, reflections by children after each class revealed that pronunciation learning and the support by parents promoted the children's engagement in learning a foreign language.

Effect(s) of Peer Phonemic Drills on Edem Igbo Children's Pronunciation of English Words with Alveolar Lateral

Ruth Ihedigbo & Evelyn Mbah

This study sets out to investigate the effect(s) of Peer Phonemic Drills (PPD) on Edem Igbo children's pronunciation of English words with alveolar lateral sounds. The objective of the study is to determine how Peer Phonemic Drills affect Edem Igbo children's pronunciation of English words with Alveolar lateral. Edem is a town in Nsukka Local Government Area of Enugu state in Nigeria. Members of Edem speech community are known to have problems in pronouncing voiced alveolar lateral approximant in both educated and non-educated indigenes. A simple random sampling technique was used to select the schools and the sample population for the study. A total of 60 participants were selected from two primary schools in Edem. The pupils aged between 7-8 years were randomly assigned to two groups: experimental and control. The experimental group received PPD, while the control group received traditional teacher-led pronunciation drills (TTPD). The study employed a pretest-posttest quasi-experimental research design, using Lyn's alveolar pronunciation tool which is a pronunciation test consisting of 20 English minimal pair words with alveolar speech sounds. The recordings of the pretest and posttest were analyzed by two independent raters, who were blinded to the group assignments. The statistical analysis tools used were mean, standard deviation, and ANOVA. The results showed that the experimental group had a significant improvement on their pronunciation of English words with alveolar lateral sounds compared to the control group. The findings show that peer phonemic drills can be an effective method for improving pronunciation of English words by Igbo learners of English as a second language. The research advances knowledge of effective strategies for reducing pronunciation errors and improving English language proficiency among Nigerians. These findings have implications for English language teachers.

Session 4B: STEW 218

Exploring listener individual differences as predictors of cognitive processing and perception of L2-accented speech

Katherine Yaw & Okim Kang

Training L1 listeners to be prepared for interactions with L2 interlocutors can complement the communicative benefits of intelligibility-based approaches to L2 pronunciation training, encouraging listeners to share responsibility for communicative success (Derwing & Munro, 2009). Indeed, previous approaches to listener training, including implicit, explicit, and structured intergroup contact methods, have demonstrated attitudinal benefits among listener trainees (e.g., Derwing et al., 2002; Kang et al., 2015; Lindemann et al., 2016). One area that remains underexplored, however, is the impact of listener individual differences on the training process, which has implications for both personalization of training design and interpretation of differential training outcomes.

The present study examined four areas of listener individual difference as potential predictors of listeners' processing and perception of L2-accented speech. As part of a larger listener training study, 71 L1 English listeners responded to instruments measuring accent familiarity (adapted from Ockey & French, 2016), personality (Goldberg, 1992), linguistic stereotyping (Zahn & Hopper, 1985), and willingness to communicate/listen (McCroskey, 1992; Gallagher & Robins, 2015). They also rated speech produced by speakers from three different L1 backgrounds (Mandarin, Russian, US English) for comprehensibility and strength of accent, and completed psycholinguistic measures of response time, processing stability, and response accuracy. Individual difference measures were treated as fixed factors in a series of linear mixed-effects models with processing and perception measures as the dependent variables.

Results showed accent familiarity and linguistic stereotyping as statistically significant predictors of both perception and processing, while emotional stability emerged as a predictor of comprehensibility and intellect of response accuracy. Particularly promising is the overall impact of accent familiarity, as this can be built through exposure and training. These findings inform the development of more targeted listener training approaches that account for listeners' individual differences and offer recommendations for future research in this area.

The effects of pronunciation instruction on L2 learner perception in Spanish: Does instruction affect perception?

Heather Offerman

Second language (L2) pronunciation instruction for production improvement represents an emergent area in the field (Thomson & Derwing, 2015); however, the effects of pronunciation instruction on L2 perception has largely been ignored, due in part to the tacit assumption that L2 perception precedes production (Levy & Law, 2010). Zampini (1998) states that this relationship is still unclear, while Tyler (2019) suggests a form of production intervention may be necessary to develop L2 perception. Further, previous L2 perception theories largely focus on category

formation and discrimination of sounds, such as the SLM (Flege, 1987), while the social categorization of sounds in the L1 and L2 is also relevant to address. Responding to these gaps, this study provides a large-scale comparative analysis of participant ($n = 45$) performance via three types of pronunciation instruction on L2 perception in Spanish: explicit instruction [EI] (Lord, 2005), visual feedback [VF] (more implicit approach) (Offerman & Olson, 2016), and a combination instruction [CI] approach (Kartushina et al., 2015). Data was collected before and after three production interventions per group consisting of a discrimination task (AXB; 144 tokens) and a nativeness judgment (social categorization) task (Liker-scale rating; 24 tokens) with respect to voice onset time (VOT) for the stops /p,t,k/ in word-initial position (English = long-lag VOT and Spanish = short-lag VOT; Lisker & Abramson, 1964). A mixed-effects model was conducted for both tasks. While participants did not display difficulty in the discrimination task, results from the nativeness judgment task reveal that the CI group significantly improved in categorizing sounds as native-like (Spanish) or non-native-like (English); the EI and VF groups displayed trends for improvement, with no improvement for the control (CO) group. It is proposed that the combination of instruction methods provides learners more resources for perceptually noticing (Schmidt, 1990) differences between their L1 and L2.

Can tone language speakers generalize their learned sensitivity to pitch in syllables into segments?

Keiji Iwamoto and Isabelle Darcy

Can tone language speakers generalize their learned sensitivity to pitch in one domain (e.g., syllables) into another domain (e.g., segments)? Pitch is used in every language but differently depending on linguistic domains. Tone language speakers (e.g., Mandarin) seem to process pitch lexically, whereas non-tonal language speakers (e.g., English) post-lexically. The processability of pitch in a particular domain may correlate with how much pitch information signals ‘meaning’ in that domain. Schaefer and Darcy (2014) found that the degree of pitch usage in one domain (syllables) in L1 predicts the degree of sensitivity in the same domain in a non-native language. They observed a hierarchical sensitivity to pitch depending on how pitch is processed in L1 and that it can transfer cross-linguistically. The current study asks whether it can transfer from one domain to another. The current study’s target is the segmental domain: word-initial voicing contrast in Japanese where pitch difference is observed (voiceless stops inducing a higher pitch on post-stop vowels than voiced ones). There are three hypotheses. The extension hypothesis predicts, following Schaefer & Darcy (2014), that pitch sensitivity in the segmental domain follows how much pitch is used in L1 lexical contrast (Fig.1A). The attenuation hypothesis predicts the reverse if tone language speakers attenuate consonantal pitch perturbation effect to preserve pitch cues for lexical contrast (Fig.1B). The pitch saliency hypothesis predicts that any L1 speaker can use pitch cues for voicing contrast thanks to its saliency (Fig.1C). A gating paradigm is implemented. Japanese NS and learners (L1 Mandarin/English) hear fragments of non-words and identify voicing categories based only on pitch cues on post-stop vowels (e.g., /tasubi:/ without /t/, i.e., /asubi:/). Preliminary results favor the extension hypothesis. The results will elucidate how pitch is processed in voicing contrast, how L1 shapes such processing in L2, and how we can help learners with perceptual difficulty in Japanese voicing contrast.

How do immigrants perceive each other's heritage language? Examining the perceptions of Canada- and Vietnam-born speakers in a dyadic conversation

Thao-Nguyen Nina Le, Pavel Trofimovich, Kim McDonough & Masatoshi Sato

People are generally inaccurate at estimating how interlocutors evaluate their social and personal skills, which creates a liking gap or underestimation of their interlocutor's perceptions (Boothby et al., 2018). The liking gap is not unique to first-language speakers; in fact, secondlanguage learners similarly miscalibrate how their personal and linguistic qualities are assessed both by other learners and first-language speakers (Trofimovich et al., 2023; Zheng et al., 2023). Because language is a cue to a speaker's identity, this study investigated potential gaps in how co-ethnic immigrants perceive each other's heritage language (HL). More specifically, it

examined whether HL speakers underestimate how much their HL skills are appreciated by their interlocutor and if there were consequences for their acceptance into a shared HL community.

The participants were 23 pairs of Vietnamese speakers in Canada, where each pair consisted of a second-generation (Canada-born) HL speaker and a recently arrived Vietnamese immigrant of a similar age. They engaged in a 15-minute conversation (mostly in Vietnamese) discussing their daily life challenges. They then used 100-point scales to assess their perceptions of their partner's HL skills and belonging to the HL community. Results revealed that both Canada-born speakers and recent immigrants underestimated how much their partner appreciated their HL skills. However, this tendency was stronger for Canada-born speakers (mean HL gap = -10.96) than recent immigrants (mean HL gap = -6.80). In addition, only for Canada-born speakers, Vietnamese use during conversation was strongly correlated with perceived HL skills ($r = .67$) and HL group belonging ($r = .52$), where the speakers using Vietnamese less extensively were less confident in how much their HL skills were appreciated and how much they were accepted in the HL community. Findings are discussed in terms of the role of perception "gaps" in inter-ethnic communication and construction of immigrants' identity.

Session 4C: STEW 278

Portuguese Vowel Contrasts are More Precisely Lexically Encoded for Learners with Greater Orthographic Awareness

Hunter Brakovec & Isabelle Darcy

Non-native speakers often have difficulty accurately encoding phonological contrasts in lexical entries (1). Lexical representations may still lack precision even when learners can accurately perceive the difference between sounds (2). Previous novel-word learning studies suggest that learners use orthography to enhance lexical accuracy; however, findings are mixed (3). Learners' ability to attend to orthography when learning words is rarely explored but may contribute to effects.

In Brazilian Portuguese (BP), mid-vowels are close or open (/e/~ɛ, /o/~ɔ/), and they pose difficulties for English learners (4). Some words carry an accent mark (férias /ɛ/ 'vacation'; êxito /e/ 'result'), reliably indicating vowel quality (close: <ê, ô>; open: <é, ó>), but for unmarked words (<e, o>), vowel quality is opaque (festa /ɛ/ 'party'; maleta /e/ 'suitcase'). If accent marks on words help learners encode vowel quality, learners' accuracy will be higher on marked than unmarked words, but only for those who pay attention to accents.

We tested 20 native BP-speakers and 20 L2-learners with auditory lexical decision (LD, measuring the encoding precision for mid-vowels; no visual/spelling information), perceptual discrimination (AX), and orthographic awareness (OA; accent mark identification) tasks. LD stimuli were familiar words (/festa/) and non-words with a switched mid-vowel (Target Contrast, */festa/). Control conditions contained unrelated real words and non-words (Unrelated Contrast, */fɛspa/). Half the selected words carry an accent ('marked'); the others are 'unmarked'. If effects depend on OA, high-OA learners should have encoded vowels in marked words more precisely than in unmarked words; low-OA learners would show no marking effect.

Everyone discriminated the vowels well (Fig.1). In LD, learners had difficulty rejecting non-words with switched vowels (Fig.2). There was no overall effect of marking – but an interaction between OA group and marking: the high-OA learners were more accurate for marked than unmarked items (Fig.3). We discuss these results' pedagogical implications.

Raising accent awareness in the ESL classroom: An action research study

Maria Jose Torres Centurion & Tania Ferronato

Within the US, accent-reduction courses are offered widely with the claim that they can help people "get rid" of their accents. As Ramjattan (2022) states, there has been an increase in these programs, which treat immigrant professionals' accents as abnormal. The way in which international students' accents are pathologized by accent-reduction courses reinforces the belief that they are deficient in their ability to communicate (Ennsner-Kananen et al., 2021). Therefore, we argue that international students in ESL programs need to be aware of such issues and agree with Deutschmann and Steinval (2020) that nowadays, the main challenge is raising self-awareness on unconscious bias. Through a qualitative approach, the present study aims at exploring ESL students' attitudes towards the concepts of accent bias and accent stereotyping

before and after participating in an accent awareness workshop, focusing on the extent to which the intervention influences their attitudes towards these phenomena. Participants are four adult ESL students with different linguistic and cultural backgrounds. The two-hour workshop consisted of multimodal activities aimed at engaging learners in self-reflection tasks. Focus group interviewing at the beginning of the workshop elicited students' initial attitudes towards the topic. The workshop was audio-recorded and transcribed for data analysis. Transcriptions were coded using a thematic analysis (Saldaña, 2013). Another data point includes students' written reflections at the end of the workshop. Findings indicate that students are unfamiliar with outer-circle accents, and they tend to perceive negative attitudes towards those accents. The idealization of native speakers makes itself visible in students' initial attitudes as participants tended to indicate a desire to speak like a "native speaker". Nevertheless, by the end of the intervention, participants encouraged self-acceptance and appreciation for one's accent and identity. These results suggest that raising accent awareness can promote a more positive attitude towards linguistic diversity among international students.

Effects of awareness-raising activities on bottom-up processing of world Englishes pronunciations

Katsuya Yokomoto, Aki Tsunemoto & Yui Suzukida

As globalization has increased second language (L2) learners' exposure to many English varieties, strengthening their bottom-up processing skills (decoding and identifying segmentals and suprasegmentals) for understanding different varieties has become essential. Although decoding unfamiliar varieties of English is challenging for many L2 learners (Stibbard & Lee, 2006), the pedagogical interventions that are effective in facilitating the speech-processing skills of L2 learners are unclear. Therefore, this study examined the effectiveness of guided awareness-raising activities about World Englishes (WE) pronunciation on learners' bottom-up processing for different varieties of WE.

Participants included 52 Japanese university students who were allocated to either an experimental group ($n = 41$) or a control group ($n = 11$). In the pre-test, the students transcribed 6 short English sentences that had been audio-recorded by Chinese, Korean, and Indian speakers (2 sentences each). The experimental group was allotted six 100-minute sessions to learn the phonological characteristics of the three varieties (2 sessions each) using awareness-raising activities (e.g., reading articles about phonological features of the Chinese variety). The control group was assigned 6 sessions of lectures, readings, and discussions involving the environment and tourism. In the post-test, the students were given a further 2 short audio-recorded sentences in each of the three English varieties (see Figure 1 for data collection schedule). The correctly transcribed words for each variety were then calculated and scored.

Sequences of Wilcoxon signed rank tests revealed significant improvements in transcription accuracies in the post-test for all varieties of English analyzed (Korean [$z = 5.30, p < .001$], Chinese [$z = 5.38, p < .001$], and Indian [$z = 3.28, p = .001$]). In contrast, the control group showed a significant improvement for the Korean variety only ($z = 2.94, p = .003$). These results have implications regarding the use of WE

pronunciation in classroom settings.

Session 5

Friday, Sept. 8, 1:30pm – 3:25pm

Session 5A: STEW 214

Phonetic training for novel category perception and orthographic learning: Relative gains of low- and high-variability for beginners of German

John H. G. Scott, Sadi E. Phillips, Ryan Z. J. Lim, Charys B. Russell, Isabelle Darcy & Lisa Süßenbach

In contrast to numerous studies of high-variability phonetic training (HVPT), wherein learners encounter numerous (e.g., 4–20) voices, few studies investigate low-variability phonetic training (LVPT), and fewer investigate the relative benefits of these training regimens for beginners at the earliest stages of foreign language exposure rather than more advanced learners (e.g., [1,2,3]). However, comparison of different levels of voice variability training interventions has crucial implications for the interaction of speech perception with cognitive load, especially at early stages of exposure, before listening routines for the target language are sufficiently automated to incur reduced cognitive load during speech perception [4,5]. Learners must also learn a novel orthography for familiar and novel speech sound categories. Taken together, the effects of phonetic training on category perception—and mapping speech sounds onto orthographic labels during earliest exposure—warrant investigation to inform training and teaching interventions.

We investigated category perception and grapheme-phoneme correspondence (GPC) awareness in German by adult native speakers of English during the first semester of exposure. Pre-tests included dictation spelling and oddity tasks. Trainees (nL+H = 19) completed a two-day (2 × 2 hr) aural phonetic training prior to classroom exposure. Training with feedback targeted 4 novel German phones (2 vowels [y: ø:], 2 consonants [ç x/χ]) alongside familiar [a: i:] and [t k]. Trainees were assigned to LVPT (nL = 10; 1 voice) or HVPT (nH = 9; 4 voices) conditions. Participants also completed spelling and oddity post-tests (4 voices, including 1–3 not in training, no feedback) at midterm and finals (final post-test included novel spelling targets with familiar GPCs). During the training phase, only the LVPT group exhibited improved accuracy, while the HVPT group saw gains only at the end of the term; both training groups outperformed the untrained group at midterm, but only HVPT at final post-test (Fig. 1). We will discuss oddity and spelling results for specific conditions ([6]) and considerations for potential early training and teaching interventions.

Exploring how production during perception training affects the perceptual learning of English /l-/r/ by L1 Japanese learners

Ruri Ueda

Given that L2 speech perception and production are considered to be connected by shared phonemic categories (e.g., Best, 1995), one could hypothesize that adding production into phonemic training might contribute to enhancing perceptual learning. However, research to date

has yielded mixed results. Having participants orally repeat perceptual stimuli has been shown to either disrupt perceptual learning (Baese-Berk & Samuel, 2016) or lead to neither disruption nor advantage (Thorin et al., 2018). From a methodological perspective, these two past studies differed in the timing of when participants were prompted to repeat stimuli, i.e., before or after a perceptual question. The goal of the current study was, therefore, to further compare the timing of stimulus repetition to gain a better understanding of the effects of producing target phonemes during perception training.

L1 Japanese speakers received three types of phonemic training on English /l-/r/. They were divided into three groups: the production-first group (n = 14) repeated the stimulus before answering the identification question, while the production-last group (n = 25) after the identification question. The Perception-only group (n = 22) did not produce the target phonemes. All groups received four sessions of training with 100 trials. A logistic mixed effects model showed that only the Perception-only group showed a significant improvement in perceptual accuracy ($p = 0.002$), and their learning was significantly better than that of the Production-first group ($p = 0.030$) and Production-last group ($p = 0.040$). This indicates that production during perception training disrupted perceptual learning, which is consistent with the study of Baese-Berk and Samuel (2016). These findings suggest that language instructors should first emphasize perceptual teaching, then introduce production practice to improve perception and production skills, which are both necessary for successful communication.

Perception of Spanish Diphthongs by L2 and Heritage Learners of Spanish

Alexa Cassio, Edwin Rodriguez, Carolina Vargas & Lauren Schmidt

The current study examines how established native perceptual categories of English influence how diphthong sequences are perceived by learners of Spanish as a second language and as a heritage language (Best, 1995; Best & Tyler, 2007; Flege, 1995), and whether this perceptual effect can help to explain the non-native pronunciation of Spanish diphthongs by L2 speakers documented in previous studies (Darcy & Mora, 2015; Puskas, 2022). We hypothesize that English-speaking learners of Spanish may have difficulties in perceptually contrasting the diphthong [ej] and the monophthong [e] in Spanish, since both sounds are assimilated to the same category in the native language, English /e/. Whereas, for heritage speakers of Spanish, who grew up exposed to both languages, this contrast may be less difficult since they have been exposed to these sounds from an early age.

In order to corroborate this hypothesis, we administered a language background questionnaire that determined participants' previous experiences with the target language and two perception tasks that focused on the identification and discrimination of these sounds. The participant groups considered for this study are university students, beginning-level L2 Spanish learners and heritage speakers (English-Spanish bilinguals), whose primary language is English and who grew up in California. In addition, a group of monolingual Spanish native-speaking students from Latin America was recruited to serve as a control group.

Preliminary findings show that the L2 learners were less accurate than native Spanish listeners in identifying and discriminating the target, Spanish diphthong [ej], and often assimilated the diphthong to the monophthong [e]. This effect was greater when the diphthong appeared word-finally than word-internally. On the other hand, heritage speakers of Spanish

achieved higher accuracy rates on both perceptual tasks, likely due to an earlier exposure to the Spanish language since childhood (Best & Tyler, 2007; Escudero & Boersma, 2004; Flege, 1995).

Session 5B: STEW 218

World Japanese: Who are Japanese speakers and how we assess their pronunciation

Asako Takakura & Tetsuo Harada

The concept of English as a lingua franca has been developed (Seidlhofer, 2013) and the definition of English native speakers (L1) and the assessment of their linguistic and cognitive abilities are widely discussed in educational settings. Although the definition of L1 speakers has been controversial, there still seems to be a general belief that learners of Japanese as a second, foreign, or heritage language must approximate the level of L1 pronunciation. Above all, since few studies on heritage language learners' pronunciation have been done, this study focuses on foreign accentedness and comprehensibility (easiness to understand) of learners of Japanese as a heritage language (JHL). Twenty-three L1 Japanese speakers were asked to rate conversation samples from five JHL university students with an advanced level or higher on the American Council of Teachers of Foreign Languages (ACTFL) Oral Proficiency Interview and from five Japanese university students educated only in Japan. The raters listened to one-minute portions of each sample and rated them on a scale of 1-9 on foreign accentedness and comprehensibility. They then judged whether or not each sample was spoken by an L1 speaker. As shown in Figure 1, the results showed that in the comprehensibility rating, the JHL speakers were not statistically different from the Japanese university students. However, it was found that there was a statistically significant difference in accentedness between the two groups (Kruskal-Wallis $H = 4.811$, $df = 1$, $p = .028$). In addition, the JHL learners were accurately identified as they were. The JHL group's accentedness can be accounted for by Flege's hypothesis that bilinguals' "phonetic category" may differ from monolinguals' (1995). The findings may imply that though the L1 norm is adopted in Japanese language speaking assessments, we must give more priority to comprehensibility because Japanese speakers will become increasingly diverse in the future.

An Intelligibility-Based Pronunciation Curriculum: The Case of The School of Modern Languages at the University of Costa Rica

Henry Angulo & Lucia Urena

Background: Oral communication instructors and students often complain about the overloading and illogical distribution of pronunciation contents in the oral courses of the BAs in English and English Teaching. Previous attempts to solve the problem have focused on teacher intuitions about what contents should be taught and in what order. We argue that the overloading most likely results from the application of the Nativeness Principle (Levis, 2005) to the design of our pronunciation curriculum, which has not been substantially updated since the 1990s. We further contend that the adoption of Levis' (2018) research-informed Intelligibility-Based Approach might be particularly helpful in finding a solution to said problem. In this presentation, we describe our initial efforts to apply this

framework to the (re)design of the pronunciation curriculum of the oral courses of the BAs in English and English Teaching at the School of Modern Languages of the University of Costa Rica.

Methods: We conducted an applied thematic analysis (Guest et al., 2012) of the literature related to Levis' (2018) Intelligibility-Based Approach to identify the tenets and instructional suggestions stemming from this framework. We then extracted the sequence of pronunciation contents from the study programs of the oral courses. Finally, we compared the main ideas and pedagogical implications of Levis' (2018) framework against the sequence of pronunciation contents taught in oral courses.

Results: As expected, the sequence of pronunciation contents seems to respond to the adoption of the Nativeness Principle and is thus incompatible with the Intelligibility-Based Approach suggested by Levis (2018). We have consequently started to edit and redistribute the pronunciation contents taught in our oral courses, which has resulted in a less congested and more logical sequence. In this presentation, we will illustrate with the former and proposed pronunciation contents for our second-year courses Oral Communication I and Oral Communication II.

The Influence of Abstract Phonological Processes on the Acquisition of a Foreign Language – an Example of German, Spanish, and English

Ramona Koob & Christine Shea

This study examines the transfer of abstract phonological rules targeting word-final obstruents from the L1 to the L2/Ln in adult learners. Specifically, we investigate the production of the word-final /d/ in German, Spanish, and English. In German, voiced /d/ is neutralized in wordfinal position to the voiceless [t], for instance, Hund ('dog') is realized as [hunt]. In Spanish, /d/ is commonly lenited to either [ð], [θ] or is completely eliminated, as in Madrid [Madrið], [Madriθ], or [Madri]. Although, there is the possibility to devoice the word-final /d/ in English, there is no alternation rule or neutralization rule in place that would result in a voiceless stop realization, but, for example, rather result in a realization such as in need [nið]. We hypothesize that speakers of languages with abstract phonological rules targeting a particular syllabic or word position in their L1 will transfer the abstract information regarding that position to their L2/Ln phonological system. Speakers whose L1 does not exhibit such a rule will have no such rule to transfer and therefore will need to learn the process from "zero", and be less likely to acquire it in the L2/Ln. To test this hypothesis, we examined productions by four groups of learners, whose native languages were German, English and Spanish, acquiring either German or Spanish as L2/Ln. Since our hypothesis relates to the transfer of abstract phonological rules, we analyzed the phonological feature [spread glottis] as the locus of transfer of transfer for L2/Ln German and the degree of lenition for transfer to L2/Ln Spanish. Participants carried out two production tasks (real and nonce words). Data collection is still ongoing, but preliminary data from three participants per group favor our hypothesis.

Immersion and oral language development: The roles of language experience and individual differences

Mutleb Alnafisah, Zoe Zawadzki, Agata Guskaroska, Erik Goodale, John Levis & Charlie Nagle

Methodologists in second language acquisition have stressed the importance of investigating L2 constructs within a dynamic view that considers within-subject variability and developmental processes. Acquisition of L2 pronunciation research, especially with regard to experiential factors associated with changes in comprehensibility and accentedness, has seen research on classroom language learners (Nagle, 2019), or on immigrant language learners (e.g., Derwing & Munro, 2013), but there has been little research on other long-term residents in the second language environments. To address this gap, this study investigates how international graduate students' comprehensibility and accentedness developed over 18 months in an immersive context, examining especially the extent to which changes in individual differences of quantity and quality of L2 use predicted changes in comprehensibility and accentedness. A mixed-methods longitudinal design was adopted with four data collection points over 18 months (Month 1, 3, 6, 18). As part of a larger data collections, 22 L2 speakers of various L1 backgrounds completed picture-description task, a Language Contact Profile questionnaire, and a semi-structured interview at each time point. Using raters from Amazon Mechanical Turk, 20 naive listeners rated speakers' picture descriptions for comprehensibility and accentedness. Results showed that gains in accentedness ratings were confined to the first three time points (6 months), but gains in comprehensibility for some subjects continued across the whole investigation period, with considerable within-subject variation. Qualitative analysis of participants' interviews showed that L2 experience was subject to substantial individual differences between L2 speakers in both the amount (quantity) and type (quality) of L2 language-related activities in the L2 environment. While quantity-based variables were associated in some cases with pronunciation improvement, quality-based variables (particularly in personal connections outside the university) were more predictive of continued improvement. We discuss the pedagogical implications of these findings and potential sources of individual differences for comprehensibility and accentedness changes.

Session 5C: STEW 278

Effects of visual feedback on the voice onset time of Spanish learners of English - An analysis of individual variability

Santiago Parra

While pronunciation has been described as a neglected skill in the L2 classroom, a growing body of literature has demonstrated that pronunciation training improves students' productions (Derwing & Munro, 2005). More recently, Visual Feedback (VF) has emerged as a novel method for teaching pronunciation. VF allows learners to see visual representations of their speech and compare them with native speakers' speech (Olson, in press). This method has proven effective in teaching voice onset time (VOT), a feature of voiceless stop consonants. English and Spanish differ with respect to VOT, while English employs long VOTs (30-100ms), Spanish employs short VOTs (0-30ms) (Lisker & Abramson, 1964). Previous research has implemented VF to shorten VOT, although there are compelling reasons to question whether the effects would be similar to lengthening VOT. The present study examined the potential effectiveness of visual feedback in lengthening the VOT of Spanish learners of English.

The participants of the study were twenty-six students from a large Colombian university. The experiment design consisted of a pretest, three VF interventions, a posttest, and a delayed posttest. The tests were composed of two tasks: recording words in isolation and words in utterances. Stimuli consisted of English words ($n= 4266$) with word-initial voiceless stops (/p, t, k/). Stimuli were controlled for stress, following vowel, and word familiarity (Table 1) and were measured for VOT using Praat (Boersma & Weenink, 2022). Results indicated that the participants performed similarly in the three stages of the study and that VF did not result in changes in VOT. However, there was some degree of variation between participants who increased their VOTs and participants who reduced their VOTs (Figure 1). The discussion will address the nature of the between-individual variability found in the current study versus the within-individual variability found in other studies with similar populations.

Effects of Peer-editing Strategy on Homophone-induced Spelling Errors among English as a Second Language Students in Enugu State of Nigeria

Evelyn Mbah, Ruth Ihedigbo & Comfort Agunwamba

Homophones are words that have identical pronunciations but different spellings and meanings. They often result in spelling errors for English language learners. Spelling errors have been remarked as a key problem in students' essays as noted in the West African Examination Council's reports on the English language. A preliminary investigation of students' essay assignments showed that students have problems in spelling homophones. The study opted for an alternative teaching strategy to know if it could reduce such spelling errors. It aimed to investigate the effectiveness of peer-editing strategies in reducing homophone-induced spelling errors among English language learners in rural and urban areas in Nigeria. The following research questions guided the study: What is the mean identified error scores of students taught

homophones in English language essay writing using peer-editing strategy and those taught using teacher-editing strategy? To what extent do the urban and rural school locations influence the mean identified error scores of students taught homophones in English language essay writing? What is the interaction effect of the editing strategies and school location on the mean identified error scores of students taught homophones in English language essay writing? The research was conducted in the Nsukka education zone using a quasi-experimental design. A sample size of 141 Senior Secondary (SS) II students was purposively selected and divided into experimental and control groups. The instrument for data collection was the dictation of essay samples. The statistical tools of mean, standard deviation, and analysis of covariance (ANCOVA) were used for data analysis. The results showed that the peer-editing strategy had a more significant effect on students' mean identified error scores of homophones compared to the teacher-editing strategy. Additionally, school location influenced students' error identification, with students in urban schools performing better than those in rural schools. There was a significant interaction effect of editing strategies and school location on the mean identified error scores of students. Peer editing has the potential to reduce teachers' editing load and encourage active student participation in learning and is recommended for educational systems in Nigeria and in other similar contexts.

Evaluation of computer-assisted segmental feedback for second language pronunciation training

Mutleb Alnafisah & Ivana Rehman

With the consistent increase in the development of technology for second language (L2) pronunciation training, continuous opportunities arise for creating new and enhancing the existing ways of providing feedback. The influence of segmental features on L2 pronunciation has been extensively investigated (Munro & Derwing, 2006; Suzukida & Saito, 2021), and the effect of segmental feedback on learners' pronunciation improvement is well established (Neri et al., 2008; Olson, 2014). However, to this day, the technology which provides this type of feedback is limited, and the tools that are freely available have not been validated or evaluated for accuracy of mispronunciation detection. This study examines the use of Google's pronunciation practice and Speechace, a speech recognition tool for pronunciation scoring, and the type of feedback they provide. The main goal of this study is to investigate the extent to which the feedback these tools provide is consistent with that of human raters. We used 50 utterances produced by non-native speakers (from the L2-Arctic database, see Zhao, et al. 2018), and we used Google's pronunciation practice and Speechace to provide segmental feedback on each. Each utterance was annotated for segmental errors by an expert phonetician, which was used as the baseline for comparison with the two tools. To assess their reliability, we used mixed effects modeling and intraclass correlation (ICC) coefficients. Results showed that Google's pronunciation practice is more reliable than Speechace. Furthermore, although human annotations were significantly more reliable than Google's pronunciation practice, we concluded that this tool is adequate to be used as a complement to L2 pronunciation teaching and learning. In this presentation, we discuss what our results could mean for future research and further technological developments. Finally, we assess the significance of our results for pedagogical implementations.

Monitoring students' behavior during autonomous ASR-based pronunciation practice

Solène Inceoglu, Wen-Hsin Chen & Hyojung Lim

An increasing number of research studies are exploring the contribution of Automatic Speech Recognition (ASR) technology to second language (L2) pronunciation learning, highlighting how it can foster autonomous pronunciation learning (McCrocklin, 2016) and help with the development of L2 segmentals (Chen et al., 2020; Guskaroska, 2019; Liakin et al., 2015; McCrocklin, 2019). Studies have also reported on learners' perception of ASR as a tool to practice pronunciation, yet there has not been any empirical investigation of what learners actually do during autonomous ASR-based pronunciation training.

Accordingly, the current study examined the ASR-based pronunciation trainings of 48 Taiwanese EFL learners producing 48 target words across six short autonomous pronunciation practice sessions. These sessions were screen-recorded which allowed us to code learners' behavior for each target word and output provided by Google's ASR.

Findings revealed the following observations (ranked in descending order from the largest to smallest category):

- a) "Incorrect+Fail": the transcription did not match the learner's first attempt of the target word. The learner attempted to produce the word again an average of 6.8 number of times, yet unsuccessfully. (28.74% of the data)
- b) "Correct": the transcription provided by ASR matched the learner's first attempt of the target word. (25.95% of the data)
- c) "Incorrect+Success": the transcription did not match the learner's first attempt of the target word. The learner produced the word successfully after an average of 4.87 attempts. (23.21% of the data)
- d) "Incorrect+Ignore": the transcription did not match the learner's first attempt of the target word. The learner moved on to the next target word. (12.42% of the data)
- e) Technical issues. (4.86% of the data)
- f) Target words skipped by learners. (4.82% of the data)

In this talk, we will also discuss findings per training session and provide pedagogical implications.

Session 5D: STEW 279

How much does my partner like me and my pronunciation? Linguistic measures predict L2 speaker perceptions in interaction

Anamaria Bodea, Pavel Trofimovich, Kim McDonough & Masatoshi Sato

How much people believe that their social and personal skills are appreciated by others can have real-life consequences, such as reducing their desire to seek advice or collaborate (Mastroianni et al., 2021). Such meta-perceptions are also important for second language (L2) speakers because those who feel underappreciated might abstain from future interaction (Trofimovich et al., 2023; Zheng et al., 2023). This study investigated whether L2 speakers' beliefs about how others perceived them (i.e., their meta-perceptions) are associated with specific patterns of language use in conversation (i.e., a linguistic signature). We analyzed 30 dyadic interactions involving 60 L2-speaking university students. The speakers engaged in a 10-minute conversation discussing two academic texts with a previously unknown partner (with English as the only common language). Following the conversation, the speakers completed surveys targeting (a) how much they liked their partner (e.g., indicating whether they want to know the person better, want to become friends) and their pronunciation (e.g., rating how fluent or comprehensible their partner was) and (b) how much they thought their partner liked them and their pronunciation (using similar scales). Conversation transcripts were then coded for eleven linguistic features (repeated words, repeated phrases, repairs, backchannels, discourse markers, content words, lexical diversity, speaking overlap, total number of words spoken, length of turn, and filled pauses) with coding reliability exceeding .94. The speakers who believed they were less liked by their partner produced fewer unique content words, more discourse markers (e.g., you know, I mean), and had longer turns (22% of variance explained). Those who thought that their partner undervalued their pronunciation produced fewer content words (30% of variance explained). Thus, less confident speakers produce more language but less content in a conversation, whereas more confident speakers do the opposite. We discuss pedagogical uses of the linguistic markers associated with underconfident meta-perceptions.

Listener appropriateness perceptions in L1 and L2 English refusals

Maria Kostromitina & Vito Miao

With the rise of English as a global language and the emphasis on L2 speakers' communicative success, scholars in the domain of L2 speech perception have extensively explored listeners' perceptions of accentedness, comprehensibility, and intelligibility as well as their phonological predictors (e.g., Derwing & Munro, 1997; Isaacs & Trofimovich, 2012). Taking a sociopragmatic view on communicative success, researchers in the field of pragmatics have explored the construct of appropriateness, focusing mainly on lexico-grammatical speech features and their role in appropriateness perceptions (e.g., Al Masaeed et al., 2020; Taguchi, 2006), bypassing phonological speech features. Thus, because both speech perception and pragmatics research have approached L2 speakers' communicative success from different perspectives, little is known about the role of phonological speech features in interlocutors'

appropriateness perceptions.

To that end, the present study set out to investigate a) how appropriateness is perceived by speakers of diverse accents and b) how it is related to phonological and lexicogrammatical features. To explore these gaps, the present study had 184 listeners from English, South American Spanish, Chinese, and Indian language backgrounds) evaluate the appropriateness of 40 refusals performed by 20 L1 and L2 English speakers on a 9-point numerical scale. In addition to appropriateness perceptions, speech recordings were coded based on phonological (e.g., rhythm, prosody) and lexicogrammar features (e.g., use of different pragmatic strategies or formulaic sequences). Results from linear mixed-effects regressions suggested that a) listener L1 did not contribute to listener ratings and b) speakers' rhythm and lexicogrammar features (i.e., use of different pragmatic strategies) significantly contributed to listener appropriateness ratings. The findings provide empirical evidence to support the phonology-pragmatic link (Hirschberg, 2017) and offer implications for contextualized pronunciation and pragmatic instruction.

A cognitive dissonance approach to moderating listener perception of L2 English speakers

Vito Miao, Meghan Moran & Okim Kang

Research has shown that listeners' biases and stereotyping affect their judgements which leads to a phenomenon where second language (L2) English speakers are often negatively perceived (Lindemann et al., 2014). While some research has explored ways to mitigate such attitudes (Kang et al., 2015; Yaw, 2022), systematic efforts have still been very limited. Thus, the current study sets out to explore the effect of a one-week intervention on U.S. undergraduate students' perception of L2 speakers by employing an influential social psychology hypothesis called the cognitive dissonance theory (Festinger, 1957). Dissonance-based interventions aim to present people with two dissonant or competing cognitions (e.g., listeners are biased against L2 speakers vs. listener bias has real-life consequences on the individual and the society). These are hypothesized to lead to psychological discomfort, thus motivating attitude change (Stice et al., 2007). The present quasi-experimental study included three intact undergraduate-level writing classes ($n = 25$ each), two intervention groups and one control. All students completed a preintervention perception questionnaire to measure listener perceptual judgements of language attitudes, comprehensibility, and accentedness of L2 English speakers. The week-long intervention included a) one 50-minute dissonance-based discussion which explicitly addressed social justice issues related to multilingual speakers, replicating many elements from Stice et al. (2009) and b) three 50-minute laboratory sessions for reflection papers. An immediate post-test and a delayed post-test (11 weeks after) were administered. Results of linear mixed-effects models showed significant and sustained improvement of language attitudes and comprehensibility ratings for the intervention groups across time, but not for the control group. Findings provide a relatively short, easily replicable, and sustainably effective intervention program to mitigate listener language attitude towards L2 English speakers, which is potentially useful to train listeners in contexts across higher education, business settings, and legal communications.

Outcomes of Perceived Accent Discrimination for L2 French Employees Working in Québec

Rachael Lindberg & Pavel Trofimovich

Second-language (L2) speakers are often aware that others may judge them based on their accent, and L2 employees especially tend to anticipate bias (Wated & Sanchez, 2006). Going beyond the typical approach of examining accent bias through listener judgements, the goal of this study was to understand accent discrimination and possible consequences from the perspective of the speakers: L2 French employees working in French-majority workplaces in Québec.

The 60 employees (aged 19–59) surveyed in this study had been learning French for 1.5 – 50 years and represented multiple occupations (e.g., management, health, service). While 14 employees grew up in Québec, 46 moved to Québec from other regions, such as the US, other Canadian provinces, Asia, Europe, or the Middle East, together representing 17 first-language backgrounds, mainly English (31), Spanish (6), and Arabic (4). All employees completed five online surveys (based on 100-point scalar ratings) targeting how their speech is viewed by Québec French speakers, how they are treated at work due to their French accent, and how willing they are to engage in certain work interactions. Optional comment boxes and follow-up interviews captured relevant anecdotes.

Pearson correlations between measures of perceived discrimination and affective and behavioral outcomes at work revealed that having more frequent experiences with accent discrimination in the workplace was associated with employees avoiding taking on leadership roles ($r = .57$), participating at meetings ($r = .42$), and applying to certain jobs ($r = .57$). Anecdotes outlined additional consequences of perceived discrimination, such as unwillingness to communicate in French. Qualitative data highlighted common stereotypes faced by employees, such as being labeled as foreigners, perceived as incompetent and unwilling to learn French, and identified as a threat to jobs and the survival of French in Québec. Implications for improving intercultural communication and the wellbeing of accented employees are discussed.

Poster Session

Thursday, Sept. 8, 12:30pm – 2:00pm

North and South Ballrooms, Purdue Memorial Union

English listeners' perception of Korean three-way laryngeal contrasts of stop consonants

Eunjin Lee

Adult learners often experience difficulty with novel phonological contrasts. The Perceptual Assimilation Model (Best, 1995; Best & Tyler, 2007; Tyler, 2021) predicts which contrasts will be more challenging for learners with particular phonologies by relating listeners' performance on a perceptual assimilation task to their performance on a discrimination task. While research has examined the perceptual assimilation of Korean lenis, aspirated, and fortis stops (Schmidt, 2007) or the discrimination of Korean three-way laryngeal contrasts (i.e., lenis-aspirated, aspirated-fortis, lenis-fortis; Kwon, 2014) by English listeners, no study to date has related the findings of these two tasks to predict the relative difficulty of the contrasts for English learners. In the present study, we examine the perceptual assimilation and discriminability of the Korean laryngeal contrasts by English listeners with no prior experience with Korean. In a perceptual assimilation task, participants categorized and rated nine Korean stop consonant phonemes (i.e., /p, t, k, p^h, t^h, k^h, p^{*}, t^{*}, k^{*}/) as instances of one of twelve English consonants or "other". In an AX discrimination task, participants discriminated each of nine contrasts (i.e., /p/-/p^h/, /p/-/p^{*}/, /p^h/-/p^{*}/, /t/-/t^h/, /t/-/t^{*}/, /t^h/-/t^{*}/, /k/-/k^h/, /k/-/k^{*}/, /k^h/-/k^{*}/). The results of the perceptual assimilation task showed that English listeners assimilated both lenis and aspirated stops to English voiceless stops, whereas fortis stops assimilated to English voiced stops. This results in single-category assimilation for the Korean lenis-aspirated contrast and two-category assimilation for lenis-fortis and aspirated-fortis, respectively. The AX discrimination task results demonstrated that discrimination accuracy for the lenis-aspirated contrasts was significantly lower than the lenis-fortis and the aspirated-fortis contrasts. This finding is supported by significantly lower d' scores, indicating that English listeners are less sensitive in distinguishing the lenis-aspirated contrast. Although variability was observed from individual data, the results support the predictions of the PAM model.

Make it Authentic and Engaging: Creating Authentic Resources for Language Teaching

Ayman Elbarbary and Edna Lima

Many Arabic as a foreign language (AFL) teachers claim that one of the biggest challenges they face is the lack of materials that prepare learners to communicate successfully in real-life situations (Said, 2015). A possible solution to this problem is to create classroom materials from authentic sources. According to Joraboyev (2021), authentic materials are any

written or audiovisual content not initially designed for teaching or learning; they are materials created for native speakers. This includes resources such as YouTube videos, movies, songs, news articles, blog posts, advertisements, flyers, menus, and cookbooks. In addition to preparing learners for real-life communication, authentic materials have been shown to increase motivation among language learners (Sample, 2015). This poster presentation provides the audience with the best tips for creating engaging, real-life context materials for teaching Arabic to non-native speakers. The aim is to help AFL teachers to create authentic and semi-authentic materials that integrate the four language skills with a focus on function, pronunciation/phonology, and grammar. At the end of the session, the audience will be given recommendations for digital resources that can help create this type of material for their students. Although our presentation focuses on Arabic, these recommendations are applicable to any language.

Regional Variation in Chinese Learners' English Pronunciation Errors: A Synthetic Review

Shangyu Jiang and Agata Guskaroska

Chinese learners from different parts of China have varied dialectal backgrounds, which influence the learners' English pronunciation differently. Over the past two decades, many studies of L2 pronunciation have focused on Chinese learners from specific regions of China, identifying common English pronunciation errors peculiar to those regions. However, a holistic picture of these findings is needed to provide a thorough understanding of the regional patterns of these issues to facilitate pronunciation teaching in a cross-regional context. This project seeks to fill this gap by conducting a synthetic review of the literature, aiming to discover regional variation in Chinese learners' English pronunciation errors.

By searching four databases for peer-reviewed articles, dissertations, and theses, the authors identified 48 studies included for this review. The included studies were categorized into seven regional/dialectal groups—Northern Chinese (Mandarin), Wu, Min, Xiang, Gan, Hakka, and Yue—based on their location of investigation. Common pronunciation errors identified by these studies were analyzed to discover regional patterns. The regional patterns were then compared to uncover cross-regional similarities and variation.

The review generated three categories of English pronunciation errors common to Chinese learners: 1) errors common to learners from all regions; 2) errors more common to learners from certain regions; 3) errors only found in learners from certain regions. The results of this study have pedagogical implications for pronunciation instructors who teach Chinese students from various regional backgrounds, allowing them to customize their instruction to target the prevalent errors among learners from different regions. This study also argues for a more fine-grained region-based categorization of Chinese learners in certain pronunciation research contexts.

Examining Inner Circle Teacher Beliefs on Native-like and Comprehensible Speech in Learners of English

Katrina Rost

SLA researchers have long argued that native-like accent is not a productive goal for L2 learners, advocating instead for intelligibility and comprehensibility, which raises the question of the extent to which ESL/EFL teachers believe that native-like (i.e., non-accented) speech is an important goal for learners compared to comprehensibility. Contextualizing their research in World Englishes (WE), many studies have considered this question within the outer/expanding circle (i.e., countries where English may not be the primary language but is an important medium for communication) finding that teachers demonstrated a preference for native-like speech; studies conducted in inner circle settings (i.e., countries where English is the primary language) found that teachers preferred comprehensibility over native-likeness^{9,10}. The present study examines two questions: (1) Do ESL teachers in an inner circle setting believe that comprehensibility is a more important speech goal for learners than native-likeness? And (2) What are their reasons for their beliefs? Using a combination of Likert scale survey items and short-answer questions, teachers rated their agreement with 12 statements related to learner speech goals and provided explanations for their selections. Survey data revealed a significant preference for comprehensibility over native-likeness across participants ($t(43.72) = -9.67, p < 0.001$). Short answer responses, analyzed using NVivo 11, revealed a more nuanced view on native-likeness and comprehensibility with some participants stating that native-like accent may be important in some contexts. Other response trends included asserting the difficulty of defining native-like accent, emphasizing the importance of learner goals, acknowledging the reality of listener biases, and problematizing the role of the speaker and listener. The present study helps illuminate to what extent the shift in the discourse has translated to inner circle teacher beliefs and provides crucial information around the reasons for teachers' beliefs related to learner speech goals.

Non-Lexical Words and Prosodic Prominence: The Role of Speaker Background and Register

Mahdi Duris, Inyoung Na and Mutleb Alnafisah.

It is commonly argued that lexical words receive prosodic prominence, whereas Non-Lexical Words (NLWs) are non-prominent in spoken discourse. Yet, emergent evidence from spoken corpora preliminarily suggested that this distinction might not be completely accurate as NLWs can be situationally informative and therefore assigned prominence. Using a spoken corpus, this study sought to re-examine this distinction and test various categories of NLWs in two registers (academic and business registers) and across two speaker types (native English speakers and Hong Kong English speakers). Results from quantitative and qualitative analyses revealed that NLWs indeed might be assigned prominence consistently in both registers and both types of speakers and that prominence is often triggered by what speakers deem communicatively profitable. However, variation between NLW categories was observed, with negations, interjections, and numerals tending to receive prominence significantly more than other categories. Furthermore, within-category variation was also present – particularly in determiners, modal verbs, and auxiliary verbs – and usually is attributed to register and speaker differences. The findings suggest that pronunciation teachers should not teach learners prosodic

prominence based on the inherent linguistic properties of words but on the situational informativity of their message.

Accentedness implications on emergent identity: a cross-sectional study of non-native French speakers

Laetitia Kokx.

Looking at accent as “a dynamic aspect of linguistic fluency” (Moyer, 2013), we can consider how the pronunciation of non-native speakers (NNSs) may impact their perception of themselves, pushing them to adjust their pronunciation when communicating with native speakers (NSs). Drawing on the model of learner investment (Darvin and Norton, 2015) and on the notion of emergent identity (Holmes, 2000) as the process of asserting individuals’ identity in relation to social interactions, I approach NNSs’ accentedness as a potential factor of identity modification, and I suggest that pronunciation inaccuracies can reinforce divergence in identity. Thus, the primary goal of this paper is to explore how accentedness can affect the emergent identity of NNSs of French. In addition, this study seeks to examine how pronunciation skills may widen the gap between self and social identity.

To address these questions, I distributed a survey to NNSs of French with three different language proficiency levels to assess their own perceptions of their accents. The interpretation of results through seven themes and analysis of data across the different groups provided insight into participants’ perspectives on the influence of accentedness in their social interactions, contrasting with their self-presentation. After, I conducted semi-structured interviews and examined them through Narrative Analysis, getting additional interpersonal insights from participants’ experiences as relevant knowledge and linking stories to thematic elements. Findings suggest that in connection to the value that NNSs put on ideologies, their expectations (own/on others), and their self-confidence level, their emergent identity can be disrupted by their accent. The gathered data also highlighted how the length of contact with NSs and L2 proficiency play a role in the gap between NNSs’ Self Identity and Public Image. Within this framework, the pedagogical implications fit into NNSs’ investment in pronunciation skills and, consequently, in their desire to improve their accentedness.

Using Corpus Data to Empirically Investigate Native English Speakers’ Pausing Patterns

Ammon Hunt, Mark Tanner, Joseph Stanley and Jeff Parker

This study empirically examines how native English speakers’ pausing patterns align with clause and phrase boundaries and punctuation. Tavakoli (2011) shows that pauses produced by L1 English speakers are generally located at clause boundaries, while L2 English speakers tend to produce pauses mid-clause. To gather evidence for this, we gather 80 speech samples, 40 male and 40 female, randomly selected from the International Dialects of English Archive (IDEA) representing different regions in the United States. The grammatical structures within a portion of the read-aloud section of the recordings were then tagged, and the filled and unfilled

pauses were marked for location and duration. We find that 91.5% of all pauses in the speech samples occurred after clauses, phrases, or punctuation marks, leaving only 8.5% to occur within these structures. We also find that, when given the chance, L1 English speakers paused 94.2% of the time after periods, 69.4% after clauses, 44.7% after commas, and 5.7% after potential phrase boundaries. Pauses were statistically significantly longer at clause and period boundaries than at phrase and comma boundaries, with men producing significantly longer pauses than women (≈ 100 ms). These findings have implications for helping L2 English speakers enhance their fluency and intelligibility in English through their use of pausing. For example, it could be beneficial for ESL/EFL teachers to instruct their students to pause most frequently after a clause, after phrases if necessary, and rarely within clause and phrase boundaries in order to be the most fluent and intelligible.

The Long and Short of It: L2 Production of Finnish Geminate

Jeanne McGill

Studying Finnish in North America is increasing in popularity. The company Duolingo shared that at least 7500 people in the US began their Finnish course within four days of its release (Helsinki Times, 29 June 2020). The acquisition of Finnish by American English L1 speakers is relatively understudied, however. The language pairing is of linguistic interest for several reasons, including the fact that Finnish contains phonemic geminates (e.g. a /k/ vs. /kk/ contrast). This work presents a case study about the acquisition of Finnish geminates by an L1 English speaker. Data are from a production task conducted with a student who had taken two semesters of Finnish and spent 3 weeks studying abroad in-country.

Finnish allows geminates post-consonantly (such as /rkk/) while most other languages do not (Dmitrieva, 2012), maximizing their frequency. In one corpus study, Finnish geminates occurred more than twice as often as in Japanese (Aoyama, 2001, p. 25). Additionally, little reduction happens during conversational speech by native speakers (Engstrand and Krull, 1994). A further complication is the mismatch between English prosody and consonant clusters and Finnish geminates, which appear in contexts where English speakers are not listening for them or used to producing them.

Bassetti and Atkinson (2015) showed that in moving from a geminate language to English, Italian participants lengthened consonants like the /tt/ in *kitty* 50% more than the /t/ in *city*. They are used to lengthening doubled consonants, while L1 English speakers are used to ignoring them because pronunciation does not change, so it is logical to assume that English speakers would have difficulty with geminate production. In this case study, the participant had trouble making some geminates longer than the singletons, and the longer ones did not necessarily approach target-like length.

The effects of exposure and explicit stereotypes on veracity judgments of Polish-accented English speech: A close replication and extension of Boduch-Grabka & Lev-Ari (2021)

Samantha Barlow, Emma Farnsworth, Riley Murray, Zéta Bsharah and Rachel Hayes-Harb

Lev-Ari & Keysar (2010) demonstrated that so-called “native” British-English-speaking listeners judge statements produced by “Polish-accented” speakers as less likely to be true than statements produced by so-called “native” speakers. Following this finding, Boduch-Grabka & Lev-Ari (2021) showed that prior exposure to Polish-accented English speech modulates this effect. They found that prior exposure led to higher comprehension of the Polish-accented speech, which in turn dampened the negative effect of the accent on veracity judgments. Given the real-world consequences of this study, and our commitment to assessing and mitigating sociolinguistic prejudice, we conducted a close replication of Boduch-Grabka & Lev-Ari (2021), extending the work by collecting additional information from participants about their explicit biases towards Polish migrants in the UK.

This study was conducted by a team of 21 undergraduate researchers. Through this experience we developed expertise in the social impacts of accented speech, as well as a foundation in collaborative and transparent research that is crucial to social justice and public trust in science. The study’s preregistration and open materials can be found at <https://osf.io/etgc4/>.

In our study, 189 self-identified “native” speakers of British English participated in an online study involving:

- Informed consent
- Exposure phase - randomly assigned to hear eight “native” British English (BE) or Polish-accented passages
- Veracity judgment task - judge veracity of 50 trivia statements produced by BE and Polish-accented speakers
- Comprehension task - transcribe several Polish-accented sentences
- Background questionnaire
- (New) Explicit bias task

We did not replicate the original results, observing no effect of speaker accent or exposure on listening comprehension or veracity ratings. Some measures of explicit bias predicted veracity ratings for both Polish-accented and BE speech, suggesting a complex relationship between explicit biases and responses to various accents. We explore possible explanations for the lack of replication as well as future directions for this work.

The effects of correct feedback frequency on ESL pronunciation uptake, repair, and preference

Rachel Stuckel and Shannon McCrocklin

Previous research shows Corrective Feedback (CF) is helpful for promoting noticing of language features during meaningful interaction (Couper, 2022). Within L2 pronunciation, research mostly focuses on what forms of CF are most effective (Couper, 2022; Lyster & Saito, 2010). Little research examines how frequency of CF affects learners’ uptake and pronunciation repair.

In this study, participants (n=9) participated in an hour-long, recorded, videoconferenced, English pronunciation tutoring session one-on-one with a researcher. Before the session, participants completed a demographic and language beliefs survey and were randomly assigned to a high (HFFG) or low (LFFG) frequency feedback training. During core practice activities, HFFG had 100% of their errors corrected while LFFG had every other error corrected (approximating a 50% CF frequency). An immediate follow-up survey asked learners about their beliefs and preferences along with emotional reactions to feedback.

For analysis, researchers identified instances of negative feedback, coding each learner response for uptake (whether the participant acknowledged feedback or attempted repair) and repair (whether the learner was able to successfully correct the mistake). Results from a Chi-squared test showed that feedback frequency did not affect uptake (i.e. no statistically significant differences between the uptake rates of HFFG and LFFG). Frequency, however, may have an impact on repair rates (i.e. marginal significance [$p=.08$] was found comparing repair rates between HFFG and LFFG using a Mann-Whitney U test); LFFG had a higher repair success rate. Participants reported mostly positive emotions when receiving feedback with only two participants experiencing nervousness/anxiousness; two changed preferences from pre- to post-survey to indicate a desire for more frequent feedback. While this study was exploratory with small group sizes, the results indicate that while learners generally prefer more feedback, we need to further explore the effect of feedback frequency on repair given lower repair levels in HFFG.

Exploring comprehensibility, intelligibility and accentedness in a French context: Influence of informal learning on pronunciation

Kossi Seto Yibokou and Grégory Miras

Within the field of Informal Second Language Learning (Sockett, 2014), previous studies have shown that French students learning English in France speak the language with a mixture of accents including British, American, French, and others (Yibokou, Toffoli & Vaxelaire, 2019).

In line with these findings, the current research explores, among other factors, the intelligibility, comprehensibility and accentedness of French students' pronunciation of English as an additional language.

Drawing on Munro and Derwing, (1995, 2020), speech samples (10) are extracted from semi-naturalistic utterances (oral diaries and interviews) of 10 French students nonlinguistics specialists. Using Limesurvey, the samples are rated by 23 English teachers in France (7 L1 and 16 L2). Preliminary salient findings show that the speech samples are about 85% comprehensible and intelligible. Accentedness is spread across the 9-point Likert scale. Unsurprisingly, half of the utterances were rated close to American English, corroborating earlier research about the impact of informal learning on English pronunciation of French learners of English. Also, factors that allow raters to identify learners' accents are of phonetic and phonological order, including those that are known to constitute a French accent (h-dropping, pronunciation of "th" and flat intonation). Finally, a correlation ($r=.75$ $p=.012$) is found between comprehensibility and accentedness, indicating that utterances which are rated less accented are attributed the

highest comprehensibility scores. No correlation is however found between comprehensibility and intelligibility. This presentation addresses issues pertaining to teaching and learning with specific attention to the question of learner autonomy and learner agency (Miras, 2020). We also discuss the role of teachers in helping students to be more comprehensible and intelligible despite their accent.

Learning phonetic contrasts from app-based HVPT training

Farrah Neumann, Audrey Kittredge and Cassie Freeman

Through exposure to challenging phonetic contrasts in a variety of words and speakers, High Variability Phonetic Training (HVPT) is an effective method for improving learners' perception (Logan et al., 1991; Thomson, 2012). Yet learners often rely on popular commercial apps to train their pronunciation, and many of these lack input from pedagogical experts (Pennington & Rogerson-Revell, 2019) and research evaluating learning (Fouz-Gonzalez, 2020).

This study fills this gap by evaluating the efficacy of a new HVPT-based feature in a language learning app with over 500 million downloads, co-designed by sound learning experts and software developers. Fifty participants used the feature for approximately 40 minutes over 3 days. They practiced identifying, discriminating, and pronouncing words with /a/ in difficult (paired with /ʌ/ or /æ/) and moderately difficult (paired with /ɛ/, /aʊ/, or /oʊ/) contrasts, and received feedback. Identification and discrimination tasks before and after app use assessed participants' learning of the contrasts in trained and untrained words, and learning of analogous phonetic contrasts.

After training, participants' discrimination ($X^2(1, 2) = 13.453, p < 0.001$) and identification ($X^2(1,2) = 5.302, p < 0.05$) improved significantly. Learning generalized to untrained words, which did not differ significantly from trained words in discrimination ($X^2(1, 2) = -0.027, p = 0.900$) or identification ($X^2(1, 2) = 0.374, p = 0.541$). Gains in identification extended to analogous, untrained difficult contrasts ($X^2(1, 2) = -3.68, p < 0.001$). However, identification of trained difficult contrasts did not improve ($X^2(1, 2) = 0.374, p = 0.541$), suggesting that more training on difficult contrasts would support learning. These results show that this feature has the potential to improve an unprecedented number of learners' perception and to serve as a model for commercial app industry research and development.

Analyzing second language tones: A comparative time-series methodology

Alexis Zhou and Daniel J. Olson.

Lexical tone, an important aspect of tonal languages (e.g., Mandarin), is challenging for L2 learners to acquire (Wang et al., 2006). As tone is an area of interest in pronunciation training, identifying the ideal method to compare L1 and L2 tone productions before and after training paradigms has become a significant issue. Many previous studies comparing L1 and L2 tone datasets after training have relied on qualitative analyses (Chen, 2022; Wang, 2008). Some studies have relied on simple quantitative measures based on acoustic comparisons (Wang et al., 2003; Zhou & Olson, submitted). These studies compare L1 and L2 tone by averaging absolute

difference scores, resulting in one value (deviation score) (Wang et al., 2003). These deviation scores can give an overall measure of how close or far an L2 production is from an L1 production but do not account for the temporal dimension of tone, losing information about pitch contour (i.e., shape) and height.

As the temporal dimension of tone is pivotal for tone comparison, the current study proposes a new method focusing on temporally resolved comparisons between two time-series datasets (L1 and L2 tone). A sample dataset, taken from an experiment testing the usefulness of visual feedback on tone production, was used for analysis. Tones from L1 and L2 Mandarin speakers were quantitatively analyzed using three methods, one using single deviation scores, one using a defined-region approach, and one using a novel method that holistically compared tones by applying a complexity-invariant distance measure proposed by Batista et al. (2011). This type of analysis provides measures of distance, magnitude (i.e., pitch height), and phase (i.e., contour). This analysis allows for a more granular, systematic way to describe how and where L2 tone deviates from L1 tone, which can advise pedagogical approaches to tone pronunciation.

ESL Teacher Perceptions of ChatGPT-generated Pronunciation Materials

Kate Challis

According to ChatGPT (ChatGPT, 2023), the artificial intelligence language model known as ChatGPT can itself be an effective tool in pronunciation research and teaching. Specifically, ChatGPT claims to have the ability to function as a conversation partner, speech synthesis evaluator, and speech generator of targeted segmental and prosodic features. These claims seem rather far-fetched, considering that at present, ChatGPT does not actually have the ability to directly create audio itself and must rely on third-party integration through its application programming interface (API). Who better to judge the extent to which these claims are true than L2 English teachers who possess valuable hands-on experience in applying teaching materials in the classroom? This study presents a qualitative analysis of semi-structured interviews paired with 7-point Likert-scale surveys of L2 English teachers' perceptions about the accuracy, usefulness, usability, and 'funness' of pronunciation materials created by ChatGPT. There were two iterations of interviews in this study, allowing for the application of feedback from L2 English teachers on prompt manipulation strategies, such as rephrasing, adding context, changing the context, clarifying assumptions, etc. Even after applying teachers' suggestions to hone and refine prompts, the actual materials produced for pronunciation research by ChatGPT remained inconsistent in all measures (except perhaps their degree of humorousness to this researcher). It is believed that this preliminary teacher-perception study can help inform future exploration into measuring the effectiveness of ChatGPT and other large language models in terms of ability to improve learner perception and production outcomes. Since this technology is not going anywhere, it would be in our interest as pronunciation researchers to find ways to apply it that are useful and ethical; this is a first step to that end.

Development of IJP (Introduction to Japanese Pronunciation): Tutorial to improve recognition skills and production skills in Japanese

Kazumi Hatasa, Yukiko Hatasa and Eriko Takahashi

Good pronunciation not only affects oral communication but also contributes to reading and writing success (Van Loon, 2002; Piasecka, 2011). Studies in ESL have shown that explicit pronunciation instruction and L2 perceptual training aid improvement on production (Lee, Jang & Plonsky, 2014; Zhang & Yuan, 2020). However, pronunciation is rarely taught in Japanese language classroom (Urakami, 2004), so learners are left to acquire production skills on their own.

Previous research has found that the ability to perceive and monitor one's own production is moderately associated with production accuracy (Ogawara, 1997; Takahashi, 2013). Hatasa & Takahashi (2019) compared pronunciation accuracy of Chinese and English learners of Japanese. They found that Chinese learners are more accurate in production in spite of the fact that the scores of the perception test was not different between the two groups. Subsequent analysis showed that pronunciation accuracy is directly linked to perception accuracy for Chinese learners of Japanese but not so for English learners (Hatasa & Takahashi, 2022), which may have contributed to the difficulty that English learners face. Based on these findings, we have developed a pronunciation tutorial system, which aims at improving the perception accuracy and monitoring ability for English native speakers.

Introduction to Japanese Pronunciation (IJP) covers topics including basics of mora, voiced/voiceless sounds, glides, double consonants, long vowels, consonants da-na-ra, basic rhythm, pitch accent, lexical accents of different groups of words (adjectives, verbs, loan words, etc.). Each unit consists of four components: explanation, diagnostic tests, recognition exercises, production exercises. Sample exercises are discrimination of consonants, discrimination of different lexical pitch accents, discrimination of different patterns of rhythm. Interactive exercises are programmed in Scratch (MIT). HVPT is incorporated in some exercises. IJP runs on PC, tablet, or smart phone.

Introduction of Japanese Pronunciation (IJP) is available at the following URL:
<https://one-taste.org/ijp/>

EVP-Phon: A tool to analyze the L2 English mental lexicon through its phonological network

Isabelle Darcy and Brian Rocca

Network science tools have been used to provide critical insights into the phonological network's structure in the mental lexicon (e.g., [1]). For example, research has shown that network structure influences word recognition [2], word learning [3], and production [4]. This work provides compelling evidence that the mental lexicon is structured and that the structure affects processing.

While great progress has been made in understanding the structure of the first language (L1) English phonological network, we still know little about the structure of the second

language (L2) network. Of course, one difficulty in creating such a network is deciding which words to include. Using databases like CLEARPOND (27,751 words) [5] or KU-similarity (19,340 words) [1] are good options, but they were made to simulate a native speaker's lexicon. The current study overcame this challenge by creating the EVP-Phon database—made specifically to simulate the L2 English phonological network. We created EVP-Phon using the English Vocabulary Profile (EVP) [6]. EVP's goal was to identify which words learners can use—not which words they should know [7]. They did this by examining the Cambridge Learner Corpus (over 50 million words from written exams from learners all over the world) to see which words learners used at each Common European Framework of Reference (CEFR) proficiency level.

The EVP-Phon is a dynamic network that grows from the CEFR-A1 proficiency level (558 words—1034 minimal pairs) to the C2 level (6324 words—7,316 minimal pairs). Minimal pairs are defined as words that differ by adding, subtracting, or replacing one phoneme [1] (e.g., minimal pairs of “trap”: rap, strap, track, trip, etc.). The current study details the network's structure as a whole (following [1]) as well as how that structure develops over time (i.e., by proficiency level). More specifically, we will discuss the network's average path length, clustering coefficient, and degree distribution. We will also outline some potential ways the tool can be used to research concepts such as functional load and vocabulary acquisition. We will also show how teachers can use this tool to quickly find minimal pairs to use in their lessons and/or materials creation. Additionally, this network does not take L1 into account, but we will discuss how future iterations can do this to model specific L1-L2 pairings.

Linguistics is also a science! The English phonetic system in a Brazilian School science fair

Máisa Helena Brum

According to Brazilian curricular guidelines for the teaching of English at Elementary and High School institutions, teachers should emphasize the teaching of reading skills as factors such as the large number of students in class, school's lack of technical equipment, and teachers overwhelmed with a great amount of work can impair the teaching and learning of the other skills, especially the speaking one. Aiming at changing this panorama, this work describes a pedagogical activity developed with High School students from a Brazilian Federal Institution, named IFRS – Campus Sertão, focusing on the learning of English pronunciation based on the phonetic system, specifically on vowel and consonants sounds. The activity was designed by five students to be presented at the school's science fair as a way to show that Linguistics is also part of the scientific world. The activity comprised a theoretical and practical approach that was divided into five different moments: 1) students studied the phonetic system and discussed its relevance to the learning of English; 2) they chose their favorite words in English and identified their phonetic transcription using a hard copy dictionary; 3) they identified and classified different phonemes (vowel, diphthongs, and consonant sounds) in these words; 4) students pointed out some of the sounds that are difficult or confusing to Brazilian learners and created short videos explaining these issues; 5) they created small cards with phonetic

symbols in order to build different words relying only on the transcription of the sounds. The work was presented at the school's science fair with the purpose of engaging students in the scientific world. Students who were the presenters at the fair came out more confident in their English pronunciation. Furthermore, the work aroused the visitors' curiosity at the fair as most of them did not know that Linguistics (Phonetics) could also be science.

Attitudes toward English pronunciation norms in EMI at a Japanese university: teachers' and students' perspectives

Shuhei Kudo

Since Levis (2005) proposed two conflicting approaches, the Nativeness Principle and the Intelligibility Principle, the field of L2 pronunciation teaching and research has stressed the importance of comprehensible L2 pronunciation as an achievable and realistic goal for learners. (e.g., Saito et al., 2016). In addition to contexts such as workplace and global communication, there have been surveys of language use and pronunciation attitudes in content-based academic situations in higher education, including EMI (English-Medium Instruction). Murata et al. (2019) reported that Japanese undergraduates' attitudes toward the use of English in EMI at one private university include a mixed continuum of L2 pronunciations, with a preference for comprehensible or intelligible pronunciation, while viewing native-like English as positive and Japanese-accented English as negative. Thus, although studies have been conducted on learners' awareness of L2 pronunciation in language use in EMI, few studies have examined how instructors who conduct such content-based classes perceive the L2 norm in EMI. To bridge this research gap, the current study addresses the following two research questions: (1) What do Japanese instructors conducting EMI in Japan think the pronunciation of their and students' English in EMI should be like? and (2) What gaps exist between the instructors' and their students' awareness of preferable English pronunciation in EMI? This study will conduct semi-structured interviews with three Japanese instructors who conduct EMI at a private university in Japan and three Japanese students who are taking the instructors' EMI class. Based on the interview data, qualitative content analysis will be conducted to categorize instructors' and their students' attitudes toward English pronunciation in EMI, and discussion will be held in terms of the context of EMI at the university, instructors' pedagogical belief, and the two aforementioned principles by Levis (2005).

Considering What Pronunciation Teachers Can Do That ChatGPT Cannot

Edna Lima and Lara Wallace

Just when pronunciation teaching was having its moment as “the Belle of the Ball,” as Derwing declared in her 2018 PSLLT invited talk on Utopian Goals for Pronunciation Research Revisited, artificial intelligence (AI) has exploded, causing some teachers to question whether it might replace us. ChatGPT, an open-source model trained to answer users' prompts in a conversational way, is particularly sophisticated and is growing in popularity. From writing

lesson plans to creating activities tailored to our students' levels and the topics of our choosing in just a matter of seconds, ChatGPT can save us time and serve as a valuable assistant. There is even a way to enable audio and speech recognition, which is already being used by some language learners to practice conversing (Registre, 2023). However, there are certain things that trained human teachers can do that ChatGPT cannot. For instance, teachers can help students identify pronunciation features that they are struggling with and provide an individualized plan to address the weaknesses to help students become better communicators. In addition to language skills and proficiency, teachers can help students develop confidence through empathy and personal experience, a feature that AI is not able to offer—yet. In this poster presentation, we will examine the ways in which we can use ChatGPT in pronunciation teaching and define our particular, as of yet, irreplaceable roles as teachers.

The effect of Phonological Awareness Raising on the Pronunciation of Mexican Learners of English

José Alberto Nájera

The role language transfer has in the second language learning process has been widely acknowledged and negative transfer in most aspects of language has been extensively addressed. Efforts to overcome negative transfer in many Mexican teaching practices, however, appear to be especially focused on grammar transfer, leaving aside others aspects like phonetics/phonology; when phonetical negative transfer occurs, efforts appear to be limited to drills and other techniques aimed at having students repeating and practicing with words/phrases containing a given challenging sound.

Although such techniques may be effective, there are some sounds that require to be approached in a different way in order to be better grasped by learners. Thus, this presentation describes a study carried out with the intention of exploring negative phonological transfer and the effect that phonological explicit instruction might have in such interference as well as with the aim of providing learners of English with a more tangible perspective towards English language sounds. A mixed (quantitative and qualitative) methodology was used in such study that was undertaken in a Mexican university with young adult Mexican learners of English. During the treatment, detailed explanations about the articulatory system and about how sounds (especially those that do not exist in the Spanish phonological system) are physically/physiologically produced took place.

At the end of the study, it was found that learners developed confidence and showed proclivity to know how phonological systems work; also, they appeared to have developed phonetical/phonological awareness and a degree of improvement in the pronunciation of some English sounds/words. This may pose an alternative approach to teach pronunciation of some sounds to those involved in English Language Teaching in (although not limited to) the Mexican context or other contexts where Spanish appears to be the learners L1.

The perception and lexical representation of Hindi dental-retroflex contrasts by English speakers

Sylvia Page, Jacob Johnson, Emma Farnsworth, Shannon Barrios and Rachel Hayes-Harb

Language learners vary in their pre-existing perceptual sensitivity to novel contrasts. English speakers' degree of sensitivity to Mandarin lexical tone contrasts is associated with an ability to distinguish newly-learned Mandarin-like minimal pairs (Wong et al., 2007). However, the relationship between pre-existing sensitivity and word learning has not been examined for segmental contrasts. In two experiments, we ask:

1. Do English speakers vary in their sensitivity to Hindi dental-retroflex stop consonant contrasts?
2. Does pre-existing perceptual sensitivity predict learners' word learning performance for these contrasts?

To address our first question, 52 English speakers (lacking experience in languages with aspiration contrasts and/or phonemic or allophonic retroflex consonants) participated in an AXB task involving four Hindi talkers' productions of four contrasting pairs of Hindi phonemes (/t̪-/t̪h/, /d̪-/d̪h/, /d̪f̪-/d̪f̪h/). Inter-participant discrimination performance was highly variable, confirming these contrasts provide a suitable test case for our second research question (HayesHarb & Barrios 2020).

Six months after our first experiment, 34 returning participants completed a word learning study involving eight exposures per word learning block of one Hindi talker's two productions each of five Hindi-like minimal pairs distinguished by place of articulation. After completing a practice test establishing they had learned the words' global forms, participants were tested on their ability to distinguish between minimal pairs involving the novel contrasts. Their test performance, with new auditory tokens from the same speaker, revealed no correlation between participants' perceptual sensitivity and ability to encode the novel contrast, likely due to floorlevel word learning performance.

Due to lack of sufficient word learning, we must ask whether this particular contrast is too difficult, or whether our word learning task was insufficient. In an effort to aid participants in word learning, in ongoing data collection we are providing trial-by-trial feedback during practice tests which highlight the minimal contrasts.

Assessing pronunciation feedback from Google Translate ASR: real and nonword output in predictable vs unpredictable contexts

Paul John, Carol Johnson and Walcir Cardoso.

Corrective feedback on pronunciation errors can be highly effective (Saito, 2021) but also challenging to provide. Fortunately, learners can access feedback autonomously via automatic speech recognition (ASR), as in Google Translate (GT) (van Lieshout & Cardoso, 2022). Little is known, however, about the accuracy of ASR-generated feedback (McCrocklin & Edalatishams, 2020). Our study focuses on three Quebec francophone (QF) pronunciation errors in English: thsubstitution, h-deletion and h-epenthesis (John & Frasnelli, 2022), leading to real-word (thank→tank, heat→_eat, old→hold) or nonword output (thief→tief, happy→_appy, ice→hice). We investigated GT ASR transcription accuracy for 120 correctly and incorrectly realized target items recorded by QFs in both predictable and unpredictable sentence contexts. Incorrect realizations constituted either real words (tank-eat-hold) or non-words (tief-appy-hice).

In predictable contexts, we found high transcription accuracy for correct realizations (88.33%) and no false alarms (i.e., correctly realized thank-heat-old were never transcribed as tank-eathold). That is, given predictable contexts, GT ASR effectively confirms and reinforces correct pronunciations. Accuracy was lower for incorrect realizations, with contextual cues (Ashwell & Elam, 2017) triggering frequent false negatives (i.e., mispronounced thank-heat-old being nonetheless transcribed as thank-heat-old), but accuracy was higher for real-word (47.5%) than nonword (8.33%) mispronunciations. GT ASR thus provides considerable (albeit inconsistent) feedback on real-word but not nonword errors, by definition absent from the GT lexicon.

In unpredictable contexts (data collection ongoing), we expect correct and incorrect pronunciations leading to real-word output to show equivalent transcription accuracy. In contrast with predictable contexts, the absence of contextual cues should lead to lower accuracy for correct realizations but higher (equivalent) for incorrect real-word output. That is, ASR feedback in unpredictable contexts should be less accurate on correct but more accurate on incorrect pronunciations. Furthermore, we anticipate lower rates of false negatives for nonword output. Our presentation will address the pedagogical implications and applications.

Second Language Learner Autonomy: Learners' Self-Assessment of Pronunciation and their Choice of L2 Sounds for Meaningful Communication

Mi-Hyun Kim and Hyunju Ha

The purpose of this study is to propose that second language (L2) learners are autonomous to choose sounds to learn for meaningful communication. Low-level L2 learners overestimate their pronunciation and high-level learners underestimate it (Trofimovich et al., 2016). This suggests that learners pay attention to sounds and sound changing rules they need to communicate with their peers of similar levels. Also, learners' confidence in pronunciation may increase when there are fewer words to distinguish at a lower level of proficiency. Comprehensibility rating among L2 learners is also higher than that by first language (L1) raters (Nagle et al., 2022). This implies learners are not distracted by sounds that are not needed for communication with their peers at the same level while L1 speakers hear both correct and incorrect sounds of their language from L2 learners.

In order to support the proposal that L2 learners acquire and use L2 sounds of their choice for communication at their proficiency levels, a study was conducted with 27 non-heritage learners of Korean at a college in North America. Students answered 23 questions about their self-assessment of Korean pronunciation and their attitudes toward pronunciation in communication. The same students were asked to read 62 words and 8 sentences that have 18 target consonants and 12 target vowels to examine how accurate the learners' assessments of their pronunciation is. The result shows lower-level learners were more positive about their pronunciation than upperlevel learners. For example, 83.3% of 2nd Year and 70.6% of 3rd Year students responded they had communication difficulty due to others' pronunciation. Also, 33.3% of 2nd Year and 64.7% of 3rd Year students said there are students whose pronunciation is better than theirs.

This study discusses that among many sounds they are taught, learners choose to learn and use the sounds they need to have meaningful communication.

Overcoming reduction of L2 French unstressed vowels

Viviane Ruellot

This is a report of a study in progress examining the acquisition of the vowels [a] in unstressed syllables in French as a second language (L2), in an academic context with and without explicit instruction, and with and without linguistic immersion via study abroad. Explicit instruction has been found to increase learner awareness and subsequent acquisition of pronunciation (Camus, 2019; Couper, 2011; Derwing et al., 1998; Kennedy et al., 2014). Unlike English, French unstressed vowels are not reduced to the neutral, central vowel [ə] (Tranel, 1987). Reduction of unstressed vowels, observed in the speech of L1 American learners of L2 French (Milligan and Bottke, 1943) is unlikely to impair communication as it entails little semantic contrast in contextualized speech. However, as it may still affect comprehension processes and be a marker of a foreign accent (Coulange, 2019), some learners may wish to eliminate it from their pronunciation. Research on the benefits of linguistic immersion for pronunciation improvement, such as experienced through study abroad programs, has yielded mixed results, mostly attributable to individual differences (Müller, 2018). Yet little is known about the evolution of the acquisition of French pronunciation (Kennedy et al., 2014), in such contexts. This investigation into the acquisition of French [a] and [e] seeks to expand our knowledge about the stages of French pronunciation acquisition.

American learners (n = 83) enrolled in beginner, intermediate, and advanced French courses at a Midwest institution recorded their pronunciation of a French narrative containing words with [a] in unstressed syllable (e.g., famille, family). The target vowels are currently being treated for duration and formant measurement (Colantoni et al., 2015). Results will be discussed in terms of the theoretical and pedagogical implications of the findings.

Teaching Tips Session

Friday, Sept. 8, 3:45pm – 5:15pm

STEW 206

Using Audiovisual Materials to Teach Pronunciation

Carolin Jolitz and Ines Martin

Captioned video offers learners a combination of auditory and visual input and has therefore been suggested as a great tool to enhance L2 learning (see Montero Perez, 2022, for a review). In particular, the simultaneous presentation of different modalities (i.e., auditory and visual modality) can help learners create and strengthen mental connections between different representations, resulting in greater depth of processing, more coherent mental representations, and greater learning outcomes (Mayer, 2014; Paivio, 1986). In this vein, recent research has also shown promising beneficial effects of captioned video on L2 pronunciation learning (e.g., Wisniewska & Mora, 2020). This teaching tip is designed to demonstrate how captioned video can be utilized as a springboard for communicative activities and complement pronunciation instruction in the L2 classroom. A step-by-step approach will be presented, using short videos from the German telenovela Nico's Weg and focusing on the pronunciation of and in German. While this teaching tip uses L2 German as a language focus, the presenters will ensure that all steps are presented as representative for other L2s as well. Specifically, in our proposed teaching intervention, learners (1) receive a brief explicit instruction on the pronunciation of the sounds corresponding to the above-mentioned graphemes, (2) watch a video and are instructed to focus on these specific grapheme-phoneme-correspondences, (3) complete a controlled practice activity in which they read aloud the video transcript while focusing on their pronunciation and provide pronunciation feedback to one another, and (4) engage in communicative practice activities based on a set of questions or prompts. Additionally, ideas for incorporating captioned video into homework assignments will be provided. This teaching tip aims to provide attendees with a repertoire of different strategies for combining audiovisual materials with teaching pronunciation.

Using ChatGPT in Pronunciation Classes

Eva Miszoglád.

“How can I improve my pronunciation quickly?” - a question we as teachers always want to have a solid answer to. What if we suggested ChatGPT, a tool many of our students already use, for pronunciation practice? This teaching session would describe how students can use ChatGPT for pronunciation practice for both in-class and out-of-class practice.

ChatGPT can be used in a variety of ways to help students quickly access information about both segmental and suprasegmental features of English pronunciation. For example, ChatGPT can offer targeted help for sound-level practice by creating minimal pair practice for students with numerous examples for out-of-class practice. ChatGPT can also assist with analysis of longer text and assist students with word-stress related issues. The predictability of word stress can be an area of frustration for students, and the AI tool can help with this as well. Learners can input a list of words (possibly taken from a list of words their instructor marked for improvement) and ChatGPT can mark stress in words by capitalizing the stressed syllable. IT can also provide quick context in which the word can appear, thereby helping students master and practice new words not only in isolation but in context as well. These easily accessible and instant practice activities can help motivate students to stay consistent in their practice and take responsibility for their own learning. The teaching tips explored in this session will show examples of ChatGPT-produced answers to pronunciation-related questions students have utilized for pronunciation practice. Specific tips, student, and teacher testimonials will be provided for teachers to bring this useful tool into pronunciation classes.

This session would be helpful for pronunciation or all skills instructors to help incorporate this popular AI tool to make daily English pronunciation practice more accessible and motivating.

Podcasting projects for in-context phonetics learning

Alyssa Martoccio

Some researchers have called for the use of podcasting projects in phonetics classes to improve learner self-awareness with respect to pronunciation (Correa & Grim, 2014). Others have tested learners in Spanish phonetics courses before and after completing such projects, finding improved overall pronunciation (Lord, 2008) and improved pronunciation on specific sounds (Lord, 2005; Martoccio, 2022). Podcasting projects can take place during an entire semester, are completed outside of class time, can include explicit phonetics instruction, feedback including self- or other-analysis (Lord & Harrington, 2013), and can involve recording anything from individual words to sentences, tongue twisters or extemporaneous speech (Ducate & Lomicka, 2009). In addition to being available outside of class time, podcasting projects have the advantage of enhancing community in the classroom (Lord & Harrington, 2013) and allowing students to improve their pronunciation in context, which make them an excellent potential supplement to a phonetics course in which the focus is on individual sounds and dialectal variation (Schwegler et al., 2018). This teaching tip will provide attendees with a sample podcasting project used with intermediate L2 Spanish phonetics students, including recording topics and an end-of-semester self-analysis component. The presenter will share quick tips for training students to focus on phonetics-based feedback (Martin & Sippel, 2021) and ideas for revising such a project for students in nonphonetics courses.

Establishing a pronunciation clinic: Material creation and development

Dilara Dikilitas, Romy Ghanem and Vito Miao

With the growing body of research on pronunciation teaching (see Levis, 2005), more studies have sought to explore the effectiveness of different teaching pedagogy on pronunciation development (Derwing et al., 1988). Whilst this line of research has provided valuable insights into second language pronunciation teaching and learning, it can benefit from a) the inclusion of larger learner sample to reduce random variations of findings (see Gordon & Darcy, 2016), b) longitudinal design to understand the longevity of the findings (Lee et al., 2015; Nagle, 2022), c) more use of spontaneous (as opposed to controlled) tasks for data collection to improve the ecological validity of the findings (Saito & Plonsky, 2019), d) the incorporation of pragmatic-oriented teaching in light of the theoretical connection between pragmatics and prosody (Hirschberg, 2017; Kostromitina, 2023), and e) the inclusion of one-on-one tutoring in addition to classroom research to offer more learner specific implications. For these reasons, the research team is currently establishing a pronunciation clinic, featuring one-on-one, audio-recorded pronunciation teaching sessions with an emphasis on suprasegmental features in relation to pragmatic functions and meaning. The goal is to collect naturally occurring spoken data from multiple timepoints in the higher education context to construct a spoken corpus. The presentation will detail the logistics on how to create a speech clinic by including step by step instructions in order to encourage replication across different institutions. Specifically, we will focus on the earlier stages of the setup including: a) the development of instructional materials (e.g., instructional videos), b) lesson plan creation for tutors and tutees, and c) tutor selection and training.

Using Autogenerated Captions for Feedback on Segmental Pronunciation

Jin Pennell

This session will showcase an assignment where students are asked to record themselves reading a dialogue that includes many instances of their target sounds (i.e., sounds that they often mispronounce) and submit the recording to Kaltura for auto-captioning. The autogenerated captions are then used for students to reflect on the accuracy of their pronunciation. What differentiates this assignment from other Automatic Speech Recognition (ASR)-based pronunciation activities is that while most of the previous ASR-based practices asked students to dictate their speech and monitor it in real time (e.g., McCrocklin, 2019), this assignment asks students to monitor their speech retroactively through the auto-generated captions. The captioning approach used in this assignment is better than the dictation method in that students can speak in a natural pace without having to worry about slowing down for the ASR software to pick up all of their words during the dictation process (Chen, Inceoglu, & Lim, 2020). It is also less likely to cause distraction while speaking unlike the dictation method. This assignment is helpful in raising students' awareness of their pronunciation errors, but it does have some limitations, such as errors of the captioning software in capturing proper nouns and some word-final consonant clusters, and this indicates a need for more explicit assistance on the interpretation and reflection of the result. The presenter will share those limitations as well as

tips for addressing them based on their experience of implementing this assignment in an ESL pronunciation class.

Raising Awareness of New Information Placement

John Levis and Greta Muller Levis

Prominence is used to call a listener's attention to certain words in the stream of speech. Prominence is used in English to communicate discourse meaning in several ways. First, it gives a shape to speech through pitch and length changes on the last content word of an utterance (e.g., "That's really **WRONG**"). Second, it can be used to call attention to contrasts or comparisons mentioned in speech or existing only in the mind of the speaker (e.g., The cat is **ON** the table, not **UN**der the table). And finally, prominence is a way to call attention to information that should be considered new and particularly informative in speech, as illustrated by the lecture beginning in (1). Most thought groups in the lecture have prominence on the last word, but the last two move the prominence away from the end to the new information, while the repeated word ("living") is de-emphasized (i.e., not prominent). 1. Today I'm going to talk about **AYURVEDA** . . . Ayurveda comes from two Sanskrit **ROOTS** . . . **AYUR** . . . meaning having to do with **LIFE** . . . and **VEDA** . . . meaning **KNOWLEDGE** . . . So, systematized knowledge is sometimes called **SCIENCE** . . . sometimes it's translated as science of **LIVING** . . . sometimes it's **WISDOM** of living . . . sometimes it's knowledge of **RIGHT** living . . . At the end, prominence signals that there is new information in the content that a speaker is trying to communicate (Hahn, 2004), but it is cognitively demanding for L2 speakers of English to understand this special use of prominence. As a result, they are helped by extensive perception practice. This teaching tip demonstrates several ways to use perception to raise language learners' awareness of new information, including hearing which words are prominent, which words are deemphasized, and noticing how the grammar of the sentence interacts with prominence placement to make messages more clear.

Engaging Graduate Students in Prosody Practice with Faculty Interviews

Anna Moldawa-Shetty

Teaching pronunciation to advanced learners can pose challenges for instructors in academic English courses. While research in the field of pronunciation has blossomed and has helped us identify teaching priorities – prosody rising to the top of the list (Akita, 2005; Hahn, 2004; Derwing & Munro, 2015) - the task of developing pedagogical materials based on that research can present challenges. Busy graduate students with widely differing language histories and needs, a situation common in graduate settings, can add to that challenge, since they might not be motivated to engage in practice that does not meet their individual interests or perceived needs. The difficulty, then, is developing activities that are motivating to students, grounded in research, and offer opportunities for meaningful practice.

Gilbert (2014) reminds us that prosody, especially intonation, is best taught in dialogues and longer oral texts where stress and pitch change in response to what was said earlier. In this teaching tip, the presenter discusses how she applies this principle when working on intonation with graduate students. She begins by briefly describing an open-source interview series featuring faculty at a large US university discussing their research. She then shares ideas on how the interviews can be used to help students hear, analyze and practice intonation by linking pitch changes to rhetorical moves in oral research summaries.

Using English-Japanese cognates to enhance pronunciation of segments, long vowels/consonants, phonotactics, pitch accent, and phonological processes in Japanese as an additional language

Vance Schaefer, Chienhui Hsu and Tian Zhang

Cognates are ideal in teaching pronunciation. Cognates when recognized may lower cognitive load allowing greater focus on pronunciation but may also cause interference, requiring repeated practice over time vis-à-vis non-cognates for improved pronunciation (cf., Uchihara, Webb, Saito, & Trofimovich, 2022). In either case, cognates can jolt L2 Japanese learners to become aware of and focus on the features and rules of Japanese pronunciation: mora timing (consonant/vowel length), special moras, pitch accent, phonotactics, phonological processes, and regional or social accents. Second-language Japanese learners are exposed to cognates early on. Learners compare English-Japanese cognates, discovering pronunciation differences while learning patterns. Su-shi demonstrates the different vowel quality and devoicing of [u]. Sa-n-do-i-t-chi ‘sandwich’ reveals Japanese mora-based phonotactics with nasals and the first part of geminates allowed as one mora. I-n-ta-a-ne-t-to LHHHLL ‘internet’ shows Japanese accent generally falls from antepenultimate moras in loanwords or pre-antepenultimate for special moras, not necessarily reflecting the original English stress. Ko-m-bi-ni ‘convenience store’ demonstrates the phonological process of assimilation of place for nasals: [ŋ] becomes [m]. Cognates also build a foundation for noticing and comprehending diverse Japanese accents (e.g., regional; sociolects of gender, sexuality, register; context-shaped accents when speaking, reading) and facilitate adopting accents reflective of learner identities or social situations as part of communicative competence and linguistic repertoires. Cognates can boost pronunciation awareness through both inductive and deductive learning and be easily integrated into pronunciation-focused task-based learning. Cognates allow beginners to learn simple grammar, e.g., This is (not) a computer [ko-m-pyu-u-ta-a]. I like hamburgers [ha-m-baa-ga-a]. This teaching tip uses cognates to help learners discover Japanese pronunciation features. Learners hear sample cognates, describe the features and English-Japanese correlations and then, apply them to newly presented cognates. Learners reinforce pronunciation through pronunciation-focused task-based activities scaffolded by exercises teaching (beginning) grammar. Learners experience regional, social, and contextual phonological variation.